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San Francisco's Ocean Trade
PAST AND FUTURE

A Story of the Deep Water Service of San Francisco,
1848 to 1911.
Effect the Panama Canal will have upon it.

BY BENJ. C. WRIGHT
Author "Banking in California 1849-1910."

A. CARLISLE & CO.
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Illustrations of the Service.

Scattered through the book will be found a number of illustrations of steamers, all, with one exception, being now in the deep water trade of the port.

The exception is the sidewheeler Golden City, 4,000 tons, on the Panama route for account of the Pacific Mail Company from 1863 to 1870, when she was wrecked four days out from this port.

The twin steel screw Siberia, 5,655 tons, under Captain Zeeder, belonging to the same company, has been in the Oriental trade since 1902.

The twin steel screw Governor, 2,400 tons, built in 1901, is in the coast trade of the Pacific Coast Steamship Company.

The steel screw Isthmian, 3,643 tons, built at the Union Iron Works in 1908, belongs to the American-Hawaiian Company, and is in the direct trade with domestic Atlantic ports.

The steel screw Wilhelmina, 4,400 tons, built in 1909, is in the Honolulu sugar trade for account of the Matson Navigation Company.

The iron screw Mariposa, 1,939 tons, owned by the Oceanic Steamship Company, is performing a 36-day service with the Society Islands.

The steel screw Tenyo Maru, 7,265 tons, built in Japan in 1908, and owned by the Toyo Kisen Kaisha, is in the Oriental trade.

Representative steamers in the oil export trade are the steel screw Niagara, 4,400 tons, built in 1908, with a capacity of 3,000,000 gallons, is serving the Standard Oil Company. The new steel screw tank steamers, Oleum, 1,738 tons, and W. F. Herrin, 3,143 tons, are recent arrivals from the East, the former serving the Union Oil Company, and the latter the Associated Oil Company.

The Union Iron Works' large dock at Hunter's Point, emptied of water, with the United States cruiser Milwaukee inside, shows how big vessels can be docked here.

The Merchants' Exchange is visited by hundreds of people daily. It is a 14-story steel structure and the home of the San Francisco Chamber of Commerce, the name of a corporation recently formed, in which has been merged the Chamber of Commerce of San Francisco, the Merchants' Exchange, the Merchants' Association, and the Down Town Association, thus making it the largest commercial organization in San Francisco.

San Francisco's Ocean Trade

PAST AND FUTURE

An Appreciative Testimonial.

To the memory of the numerous throng gone before, by whose thoughts, words and acts direct communication by the all-water route between the Atlantic seaboard and the Pacific seaboard was inaugurated, as well as to the long line of their successors, who have since maintained and further perfected the same service, and who are now engaged in an effort to greatly shorten the route between domestic Pacific and domestic Atlantic and European ports, in the construction of a ship canal across the Isthmus of Darien, the greatest enterprise of the kind ever exploited, the accompanying story is most respectfully and most gratefully dedicated.

The pioneers in this ocean service between the Atlantic and the Pacific evidently did not fully realize the vast importance of their undertaking, as have those who have followed them.

The Pacific West is under great obligations to the Atlantic East for its rapid and successful development.

Seventy years ago there were no Pacific States or Territories. Since 1840, the number of States has been increased from 26 to 46 and the population of the country from 17,000,000 to 92,000,000. The six Pacific States which were not in existence in 1840 now report a population of 5,000,000, of which California is credited with 2,377,500.

In August, 1911, Congress conditionally conferred Statehood upon Arizona and New Mexico, with a combined population of 532,000.

Golden Gate Opened to Commerce.

While the first permanent white settlement in San Francisco dates from June 28, 1876, there was not much commerce on the waters of the bay for many years afterwards.

The Mission of San Francisco and the Mission of San Jose had each a 30-ton schooner, which had been built at Fort Ross by the Russians. After a time both became leaky and were abandoned.

William A. Richardson, who had settled in Sausalito in 1822, moved to San Francisco in 1835. He offered to put the schooners in good condition and carry the freight of the Mission for the use of the vessels and their Indian crews, which offer was accepted.

Mr. Richardson at once plunged into the shipping business, with the whole of the southern portion of the bay as a field of operations. As there was no Commerce Commission in existence to fix rates, he charged $1.00 per bag for transportation of tallow or 12½ cents apiece for hides from any part of the bay to tidewater, where these articles were put aboard ship for export. In 1835 and 1836 the exports were about 20,000 hides and 1,000 tons tallow, hardly enough for a single ship at present.

First Passenger Ship.

The Brooklyn was the first ship to enter this harbor with any considerable number of passengers. This vessel left New York February 5, 1846, bound for Oregon with 238 passengers, mostly Mormons, under the leadership of Samuel Brannan, and put into this port on July 28, 1846, just 20 days after the American flag had been hoisted by Captain Montgomery of the U. S. sloop Portsmouth, on the spot since known as Portsmouth Square.

In March, 1847, Colonel Stevenson's regiment arrived from New York on the transports Thomas H. Perkins, Loo Choo and Susan Drew.

The shipping in port at that time consisted of the above four vessels, together with the ship Vandalia, a coast schooner, a small steam launch and two rowboats.

The improvements comprised about two dozen buildings of various sizes, used for all purposes. The streets were four in number—Montgomery along the water front, with Kearny to the west, intersected by Clay and Washington.

This four-square city of Yerba Buena of 1847 looks insignificant compared with the San Francisco of 1911, with its miles of well-paved streets and its thousands of substantial buildings, many of which are the equal of the best anywhere.

First Big Fleet.

The first record of marine arrivals of much importance was for the twelve months immediately following the entrance of the Thomas H. Perkins.

The official report for the year ending March 30, 1848, showed 86 marine arrivals, including 4 naval vessels, 15 whalers, 8 small craft from the Hawaiian Islands and 58 from domestic Pacific Coast ports.

How many of these vessels came into port in the last nine months of 1847, or how many came in during the first three months of 1848, is not definitely known.

It is probable that the naval vessels and the whalers were among the arrivals of 1847. It was customary at that time for the Arctic whalers to rendezvous at the Hawaiian Islands in the closing months of the calendar year to refit for another cruise. Some of these called in here mainly for fresh water supply, which was obtained at Sausalito.

J. W. Marshal made his discovery of gold in January, 1848, and the news of that discovery undoubtedly reached points on the coast and the Hawaiian Islands soon afterwards, so that many of the merchantmen may have arrived in February and March, 1848.

First Steamers on the Pacific.

The first mercantile steamers to ply on the Pacific were built in England, and arrived at Talcahuna in 1840, having made the run from London in about 55 days. They were known as the Chile and Peru, each registering about 700 tons. They were to run between South American ports and Europe.

The first steamer to try the waters of the San Francisco bay was a small launch built by the Russians at Sitka and brought to this port on the deck of a vessel.

This vessel made one trip to Sacramento, but on her return was outdistanced by an ox team that left that city after her departure.

This event so stunned the pride of the owners that they took out her machinery and converted her into a sloop, in which form she was more successful.

The frame of a small steamer intended for service at San Francisco was fashioned on board the ship Edward Everett which left Boston on January 10, 1849, for the Pacific. This experiment was equally unsuccessful, but the machinery proved useful in running the first quartz mill put in operation in California.

Pacific Needs Recognized.

Pacific Coast affairs were not much in the public eye in 1840, and there was little appreciation of this end of the country at that time.

Within five years afterwards, however, it was realized that some consideration ought to be given to this section. At that time there were some white settlements scattered up and down the coast, and they wanted some recognition from the other side of the continent.

So in 1845 a petition was forwarded to the United States Postal Department, requesting the establishment of a mail service between New York and Oregon by way of Panama.

The enterprise contemplated a semi-monthly service between New York and Panama and a monthly service between the latter port and Oregon, to be performed by steamers approved by the Government.

After some discussion, the claim of the petitioners was considered reasonable, and proposals were solicited for the service.

Three responses followed, one for $300,000, one for $199,000 and one for $151,000 per annum, and of course the lowest one was accepted.

But neither of the lowest two bidders were able to carry out the contract, and it was finally awarded to W. H. Aspinwall, who had been previously identified with business on the Isthmus.

Mr. Aspinwall subsequently interested Gardiner Howland and Henry Chauncey in the project, and the result was the incorporation in New York on April 12, 1848, of the Pacific Mail Steamship Company, with a capital of $500,000.

The act of Congress authorizing the opening of this new mail route was passed March 3, 1847. This act was subsequently amended to include San Francisco as a port of call on the way to Portland, the subsidy being fixed at $200,000 per annum.

The next step in this movement was a little more difficult than the previous ones had been.

These gentlemen had secured a contract for a service for which they had no steamers, and there were no suitable ones in existence that could be chartered for that purpose. The contract was quite specific and strongly worded in the interest of the Government that guaranteed the expenditure for carrying the mails.

The steamers were to be built under Government supervision, and with special regard to strength, so that they might be used for war steamers in case of emergency. To this end their construction allowed piercing for guns or arrangements on deck for mounted guns.

Another provision exacted by the Government was that the steamer should be placed in command of a captain selected from the United States Navy. This was an additional guarantee that the steamers should be used for Government service in case of war.

Nearly all of the early commanders of the Pacific Mail Company's steamers were selected from the United States Navy; and many selections of that kind were made even after the exaction was removed.

The promoters of the enterprise doubtless looked upon these requirements of the Government as unnecessary burdens, but in the end they proved to be of great value to the new steamship company in the untried field it was to cover. These commanders knew the ways of the ocean both theoretically and practically as few in other professions did.

Big Steamship Contract.

Having carefully examined the terms of the contract that had been awarded them, and having fully approved and accepted the conditions imposed by the same, they at once arranged to have three steamers built after the plans of the War Department.

William H. Webb, a well known ship builder, was given the order to construct the vessels, and he immediately prepared his yard for the task. It was a hurry order and he was given a fixed time in which to build and equip the vessels.

It is needless to say that Mr. Webb carried out his contract to the letter. The vessels were to be built after the same model, each to be of 1,000 tons burthen, with paddle wheels for propulsion.

At that time most of the steamers in service on the Atlantic were under 1,000 tons register, so that steamers over 1,000 tons were something of a novelty. As each of these steamers glided from the ways into the water it was pronounced a beauty, staunch, well equipped and excellent rating for speed and comfort.

Under the command of experienced naval officers, the service was of the highest type, and the whole outfit was a splendid contribution to the marine of the world.

Tribute to the Enterprise.

William H. Aspinwall, the founder of the Pacific Mail Company, was naturally selected as the first president. At the time he was a successful business man, just the kind of a man to head an enterprise of this sort.

It is not remembered how long he held the office of president, and it is no reflection on the many other able gentlemen who have succeeded him in that important office to say that not one has given to the company's service a better administration.

The period of his incumbency was a trying one, as is generally the case with the inauguration of great enterprises, but he showed himself equal to the occasion, and his influence was felt on the affairs of the company long after he had retired from the office of president.

The enterprise itself was a great undertaking. At that time the possibilities of the Pacific Coast were not realized. The presence of gold in California was unknown at the inception of the enterprise. The subsidy was about the only revenue in sight. There was little to hope in the way of passenger or freight traffic. The undertaking was little less than a leap in the dark. But faith in the unseen was eventually rewarded.

Pioneer Pacific Fleet.

Three steamers can hardly be termed a fleet, but as subsequent events have proved, they are entitled to be considered the pioneers of a fleet that has made much history for the coast.

These steamers were appropriately christened with the names of California, Oregon and Panama. It is said that Mr. Webb built only two of these, the first and last named, and that it was Mr. Secor who built the Oregon. It is further said that Mr. Webb completed his two before Mr. Secor had finished the Oregon. The California registered 1,050 tons, the Panama 1,058 tons, and the Oregon 1,120 tons.

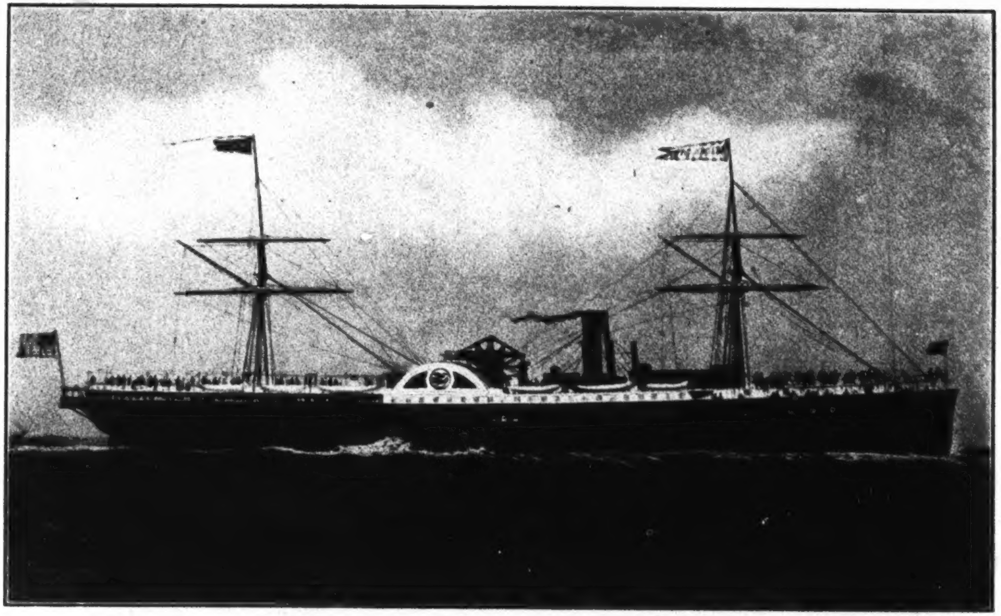
The California was the first to leave New York, and she started promptly at noon October 5, 1848, for Panama via the Straits of Magellan, under the command of Cleveland Forbes, a brother of A. B. Forbes, so long and so well known in this city.

A fellow officer of this pioneer commander of the pioneer steamer in the mercantile service under the American flag, said of Mr. Forbes: "He was as noble and gallant a seaman as ever tread the quarter deck or held a quadrant to the sun."

Captain Forbes was taken ill on the voyage to Panama, and though a proper subject for a physician's care, insisted on looking after his vessel when he ought to have been reclining in his stateroom.

The steamer made several stops before reaching Panama, and was therefore much longer on the voyage than expected.

At Valparaiso Captain Forbes was so ill that a council of physicians was called, and it was their verdict that he should be relieved from the responsibility of commanding the ship. A capable commander was found at Valparaiso in the person of John Marshall, then in charge of a ship in port en route to China, and he took the California to Panama



The Golden City of the Pacific Mail Company.

and thence to San Francisco, Mr. Forbes remaining on board as a passenger.

The California took no passengers from New York except two or three privileged characters who were bound to South America. The surgeon of the ship was Dr. A. B. Stout, who subsequently became a resident of San Francisco.

The officers of the California little knew what a crowd was at Panama waiting their arrival, for the gold fever had not become violent at the time of departure from New York.

A New Link in the Service.

While the California was steaming for Panama via the Straits of Magellan, arrangements were being made to send a steamer to Aspinwall with the view of making a connection in some way across the Isthmus to Panama, a distance of about 50 miles. How this was to be accomplished did not seem to concern the promoters very much.

The steamer Falcon was selected for this service, and she was advertised to leave New York for Aspinwall on December 20, 1848. The stories of gold discoveries in California had begun to receive some credence, and the Falcon had no difficulty in getting her berths filled.

In fact, the rush for passage seemed to be anticipated, for the time of departure was advanced from the 20th to the 1st of December. It was decided to put to sea at noon on the latter date, and within five minutes after the hour had struck, Captain Miles T. Thompson gave the order to cast off the lines, and she immediately proceeded out of the river to the sea. Two hours later she passed the steamers Oregon and Panama, the former on her trial trip and the latter returning to port disabled.

Among the passengers on the Falcon were several females, including the captain's wife, her maiden sister, and the wife of the young Baptist missionary, Rev. O. C.

Wheeler, then being sent out to the coast by the American Baptist Home Mission Society.

A good story of Wheeler in this connection has been told. He was fresh from college, and had been settled over a growing church for about a year. The officers of the Home Mission Society invited him to go to California. He told them he would not give up his pastorate for the highest office in the gift of the people. However, after much persuasion, he was prevailed upon to go. The next thing was to secure passage on the Falcon. This was on the 18th of November. The parties were surprised when they found the date for sailing had been changed to December 1st, and Wheeler was asked if he could get ready for such a voyage on such short notice. His reply was: "After all I have sacrificed in accepting the offer, I will go even if the steamer should sail to morrow."

Most of the Falcon's passengers were seasick just after starting, but the weather on the third day out was pleasant. This was Sunday, and in the afternoon religious services were held. Only two of the four clergymen on board were well enough to take part. The service was conducted by Rev. Sylvester Woodbridge and the Rev. O. C. Wheeler. On the following Sunday, Wheeler preached from the words: "I have sworn, and I will perform it, that I will keep thy righteous judgments."

The Falcon finally landed her passengers and then came the most difficult part of the voyage—that of crossing the Isthmus of Panama.

Boats or canoes were used on the Chagres river to Gorgona, or within eighteen miles of Panama, and the remainder of the way was either made on foot or on the backs of mules. Two of the lady passengers went across on mules, man fashion, in a drenching rain, and were received with great demonstrations at Panama.

Last Loop of Memorable Trip.

The Falcon's passengers had to wait twenty-five days at Panama for the arrival of the California. In the meantime others had arrived at Panama from New Orleans and other southern ports en route to California. This was due to the fact that three days after the departure of the Falcon from New York the discovery of gold in California was made public by President Polk in his message to Congress.

The officers of the California found the accommodations of the steamer overtaxed, but did the best they could and pulled away from Panama as soon as possible.

The only event of any importance on the way up from Panama arose from the fear that the coal would give out before port was reached. This fear was partially realized, for when off Monterey, in a dense fog, orders were given to burn the lumber used in making temporary berths. However, a further search found some coal in an unexpected quarter of the vessel, and what threatened to be a danger was averted. After a slow and cautious trip of twenty-eight days from Panama, the steamer California passed through the Golden Gate. Since then the trip has been made in less than one-half of that time.

An Enthusiastic Welcome.

Never was a merchant steamer received at this port more royally or enthusiastically. Of course when General Grant arrived here on the Pacific Mail steamer City of Tokio from Hongkong in September, 1879, on his famous trip around the world, there was a grander display among the shipping in the port and throughout the city, because there was more material out of which to make a demonstration.

But on the occasion of the entrance of the steamer California on February 28, 1849, the city turned out to the very limit of its population to bid her welcome.

It was a beautiful morning as she was descried in the offing, and the sides of Telegraph Hill and the vicinity of Clark's Point, where the vessel was to anchor, were eagerly taken pocsession of by the excited citizens.

The passengers on the steamer were all on deck, peering anxiously at every object in the bay and on the land.

It so happened that five American warships were anchored off Alcatraz Island. These were of different sizes, the smallest being the most outward.

The California steamed cautiously in, and then circled in and out among these warships, receiving salutes from guns on alternate sides of each vessel as she passed, accompanied with the dipping of flags and other demonstrations of joy, all of which were right cordially answered by the California's passengers.

The flagship of this small fleet was the Ohio, the largest of them all, and then regarded as the pride of the United States Navy. On the quarter-deck of the Ohio, in full dress uniform, with all the courtesy and dignities of the highest type of the navy, and directing the movements of all the warships in this splendid ovation, stood Commander Jones, bowing gracefully and waving salutes in all directions.

As the California rounded the Ohio, the last of the fleet, her monster guns belched forth their peals of welcome, and ere the smoke had cleared the decks the order of Commander Jones rang out loud and clear:

"Man the yards." In response to this order 1,500 as noble seamen as could be found in the United States Navy immediately ran aloft and filled the air with their cheers.

First Voyage Ended.

After this short spectacular marine display, the steamer California came to anchor off Clark's Point, near the northeasterly base of Telegraph Hill. There were no piers at deep water where vessels could tie up at that time, and this spot was chosen for the purpose of debarkation.

The shallow water from this cove then extended to the intersection of Jackson and Montgomery streets, an area since covered with massive buildings for various kinds of business, including the Customs House and Appraisers Building, and for many years the general postoffice.

The voyage from New York to San Francisco via the Straits of Magellan and Panama had consumed just 145 days. Afterwards many sailing vessels from New York to San Francisco via Cape Horn, made much better time than that.

The time by steamer from New York via Aspinwall, the Chagres river and Panama on this first through trip to San Francisco was 89 days. This included a wait of 25 days at Panama for the steamer California.

Some Cases of Gold Fever.

In the sense here used, this is not a new disease. People have been more or less afflicted with it from time immemorial, and it is doubtful if it ever will be eradicated.

When the steamer Falcon left New York there were stories of the finding of gold in California, and some of those who took passage on that steamer had more or less faith in these stories, but there was not much enthusiasm over the matter on the trip from New York to Aspinwall.

There was a material change in the situation upon the arrival of these passengers at Chagres. At the hotel there the landlord exhibited in a confidential way to a few acquaintances a four-ounce vial of gold dust which he alleged came from California.

This worked like a charm. Canoes for ascending the Chagres river were in great demand, as everybody was anxious to get to Panama as soon as possible, as the steamer California was supposed to be due there on the 5th of January.

It is strange what effect four ounces of gold dust will have on people under certain circumstances. Stranger still, how that quantity of California gold dust reached Chagres at that early date.

Nevertheless, it had a good effect on the canoe business. These canoes were chartered at from $40 to $60, including poling by the natives from Chagres to Cruces. One of these dugouts was of mahogany, three feet through and twenty feet long, and the crew consisted of four natives.

Ordinarily indolent, the natives just then seemed to be more than usually inactive. They were evidently on the job, and looking for tips. They had to be urged by all sorts of methods, and sometimes by the exhibition of firearms. They made frequent stops to bathe and otherwise refresh themselves.

Those who have since crossed the Isthmus under more favorable conditions do not wonder at the lack of energy on the part of those who have to exist in that sultry climate.

Before all the passengers by the Falcon reached Panama it was reported that there were 1,500 people at Chagres waiting the opportunity to get across the Isthmus in the absence of canoes and other means of transportation. How these and still later arrivals fared at the hands of the canoe managers is another story.

In view of what was learned at Panama, the delay in the arrival of the California at that point was extremely irritating. The crowd became very restless, especially during the latter part of the wait. The slow passage of the steamer up was equally if not more exasperating.

As soon as the California anchor was dropped off Clark's Point, she was surrounded by a swarm of small boats, while those in charge of them were as eager to take the passengers ashore as they were to be taken off.

While these arrangements were in progress volleys of questions and answers were fired from the small boats to the deck and from the steamer's deck to the small boats.

The burden of this volley related to the truthfulness of the stories concerning the finding of gold in California, in what section the discoveries had been made and the extent and value of the deposits.

In reply the immigrants were told that what they had heard about the discoveries was true, but the half had not been told, as the yield already was running into the millions. The large number of vessels in the harbor and the numerous tents on the shore confirmed the statements.

Gold was discovered in California in January, 1848, by James W. Marshal, an American employed by General Sutter in building a saw mill to be driven by water power at Coloma, 45 miles northeasterly from Sacramento. News of the find was pretty generally believed in San Francisco in March, 1848. At that time the population was 812. In the following month the town was deserted, as everybody had gone to the locality where the discovery had been made. Town lots in San Francisco could then be bought for a song, but there was no one left to furnish the song, or to enjoy the singing.

In the winter of 1848, when some of the people returned from the mines to San Francisco with means to buy lumber and build houses, they found their lots worth from five to ten times as much as they were in the preceding April, and the enhancement of value was really a greater fortune to them than what they had secured in their absence of four months at the mines.

It was these people and such as these that the passengers on the steamer California conversed with from the deck at anchor and as they clambered down the sides into the small boats that were to take them ashore.

On California Soil at Last.

Right glad were the passengers by this pioneer steamer to place their feet again on terra firma, and especially in California.

It is related of one of these, a bluff old gentleman, as he reached the shore in one of the boats and threw out his valise, that he noticed a man he thought was looking for a job, and proffered him a half dollar with the request to take his baggage to the hotel. In the true California style of the pioneer days, the spirit of which still lingers, the man hailed for the service plunged his hand into his pocket, and taking out two half dollars, threw them at the feet of the newly arrived with the remark, "Carry it up yourself."

On their way up town, the passengers were much amused at what they saw and heard. Passing a restaurant they read: "Potatoes served every day." It seems that the supply of the tubers had become exhausted a few days previously, but that a new lot had just come in from some source, and so they again appeared on the bill of fare. They were about as large as English walnuts and sold at $1.50 per pound.

Commodities and Values.

Prices of all commodities were naturally high in the spring of 1849, as they had to be brought in from Oregon, Mexico and the Hawaiian Islands.

Eggs were $12 per dozen. A gentleman who had just sold a dozen at that figure, when subsequently told that eggs had advanced, raised his price to $9 for the last half dozen on hand. The price of lumber was $450 per thousand feet.

A consignment of tea was put in auction by C. V. Gillespie. There was a good attendance of interior buyers, all anxious to get some part of the lot. The cargo was offered in lots of 10 chests, with the privilege of calling for as much more as the successful bidder desired. The first lot was knocked down to a man who was whittling and apparently uninterested in the sale. When asked how much he would take, without looking up he replied, "the whole cargo." The buyer was Samuel Brannan, then looked upon as one of the old residents, as he had been in the town since July, 1846, when he arrived at the head of a colony of 238 passengers.

Large Buyers.

Cargo purchases by a single individual were quite common in the pioneer days of San Francisco. Infrequent arrivals of supplies made it comparatively easy to create corners in special lines of merchandise.

As the people were dependent upon water transportation for most of their goods, it was easy to keep a record of vessels en route with cargoes. It was only when the unexpected happened that there was an upset in calculation.

One instance of the last named kind may be mentioned. The lookout reported a vessel in the offing, one that had not been expected. Two would-be buyers jumped into their boats to board the incoming vessel. One of these secured the lead of the other and maintained it in the race. As soon as he came within hailing distance he shouted, "Have you woolen shirts?"

The skipper replied in the affirmative and named the quantity as 100 dozen. He was then asked what he would take for his entire cargo, whatever it was. "A hundred per cent over cost in New York." "It is a bargain," said the young boatman, "and here is $100 to bind it." The buyer was C. L. Ross, and the speculation was a good one for him.

The California's Passengers.

Among these were four clergymen. At least two of these took passage at New York on the Falcon, which sailed on December 1, 1848. These were Sylvester Woodbridge, Presbyterian, and O. C. Wheeler, Baptist, the last named being accompanied by his wife. The other two were Congregationalists, and their names were J. W. Douglas and S. H. Willey.

Mr. Woodbridge died while acting as pastor of the Woodbridge Presbyterian Church in this city, named in his honor. Mr. Douglas did some missionary work on the coast, was at one time connected with the denominational paper and was quite a botanist. The Douglas fir of Oregon was one of his discoveries. He returned to the East, where he died. Mr. Wheeler organized and was the first pastor of the First Baptist Church of San Francisco at a salary of $10,000 per annum, but this stipend was only for a temporary period. He had good executive ability and was a strong preacher. He died many years ago. Mr. Willey was at one time pastor of the First Congregational Church in San Francisco and has always been one of the most beloved in church and educational circles. He retired from active service some years ago, and celebrated his ninetieth birthday anniversary in March, 1911.

Among other passengers by the same steamer were Captain Elliott and his wife, General Persifer S. Smith, Captain R. W. Heath, Major Fitzgerald, William Van Voorhees, H. F. Williams, D. W. C. Thompson, Major Canby, Alexander Austin, Eugene Sullivan, E. T. Batters, Alfred Robinson, Mallachi Fallon, R. M. Price, Pacificus Ord, Levi Stowell, Cleveland Forbes.

There were still others as worthy of mention as the above, but their names are not recalled. Many of the above subsequently became prominently identified with the history of the city and State. General Smith came to assume command of the American forces on the Pacific Coast.

Dr. A. B. Stout, surgeon of the steamer, subsequently organized some of these passengers as the "First Steamship

Pioneers," and was chosen president, with H. F. Williams as secretary.

On the 25th anniversary of the arrival of the California, February 28, 1874, the Pacific Mail Company kindly placed the old favorite steamer at the disposal of the "First Steamship Pioneers" for an excursion around the bay. The steamer was gaily trimmed for the occasion, and with music, songs, speeches and a dinner a happy reunion was enjoyed.

Schedule Upset.

The contract called for a monthly line from Panama to Portland, Oregon, via San Francisco. That contract would have been literally carried out but for the gold discovery in California. The pioneer steamer under this schedule did not get to Portland, nor did she go further north than San Francisco.

No sooner had the passengers gone ashore with their luggage and hurried off to the mines near Sacramento than they were followed by the crew, every man of them, and without any regard to the wages due them. The temptation to get gold by simply washing a little sand was too much as compared with the paltry wages for braving the dangers of the ocean.

But the desire to leave the steamer did not end with the leave-taking by the crew. The panic engulfed the officers as well, from the lowest in rank up to the captain. When these facts came to the knowledge of Mr. Forbes, who was in command from New York to Valparaiso, he prevailed upon Fred Foggin, one of the assistant engineers, to remain in charge of the steamer.

New Commander.

This condition of things was immediately reported to the head office of the company at New York, and as soon as possible thereafter a new commander for the steamer California was sent to the coast. The man selected for this service was Captain Budd of the United States Navy.

Too much time had been consumed in getting the steamer to San Francisco, in connection with the additional delay incident to the desertion of the crew and officers, to think of completing the voyage by proceeding to Portland. In fact, the time fixed for the return trip had already expired, and the trip for the California had therefore to be omitted altogether.

Immediately upon his arrival, Captain Budd assumed charge of the California and started to put things in order and to secure the necessary supplies and a crew. This was not an easy matter at that time, and the outfitting for the return voyage to Panama was an expensive one.

First Church Services.

If the first gold seekers in California did not turn out to church services as well as the preachers desired, they were noted for many helpful deeds to the needy and a generosity that was at once both spontaneous and chivalrous. Many a poor fellow was helped without knowing who helped him.

There were no Protestant church edifices in San Francisco in the spring of 1849. Mr. Wheeler preached in a private house on the Washington street hill, near Stockton street. For the first few Sundays not more than half a dozen persons attended the services. His first Sunday school consisted of three, one of whom was the son of General Geary.

As soon as a temporary structure was prepared, the attendance increased. The congregation was unique, nearly all men and under forty, including miners in flannel shirts and long boots, with unshaven faces, business men in garments of all sizes and fashions, and here and there a woman who, then as now, but more then than now, divided the attention of the congregation between herself and the minister.

Second Pacific Mail Steamer.

As originally planned, the steamer Panama was to have followed the California from New York, but owing to an accident on her trial trip she was detained for repairs, and the Oregon, the third and last of those first ordered for the new line, was substituted.

The Oregon left New York early in December, 1848, taking the same route as her predecessor. She was under the command of R. H. Pearson of the United States Navy.

Arriving at Panama, she took the passengers that left New York by the steamers Falcon and Crescent City for Aspinwall February 1st and 5th. The former called at a port on the way, and both arrived at Chagres about the same time.

The Oregon arrived at San Francisco on April 1, 1849. Captain Pearson had been informed of how the crew of the California had deserted the ship immediately upon arrival for the mines, and he therefore took the precaution to secure his crew beyond escape as he came to anchor. His naval experience no doubt prompted this action, and the effect of his discipline made the task an easy one.

Prominent Passengers.

The Oregon brought 250 passengers, many of them more or less prominent in the varied walks of life, while others attained notoriety after landing. A full list is not at hand.

Those remembered embraced Capt. L. M. Goldsborough, who afterward became a commodore, Dr. A. J. Bowie, Major R. P. Hammond, Dr. George F. Turner, Captain (afterward General) E. D. Keyes, Frederick Billings, F. D. Atherton, John Benson, A. K. P. Harmon, Rev. Albert Williams, Dr.

Horace Bacon, D. N. Hawley, Captain M. R. Roberts, E. B. Vreeland, Dr. W. F. Peabody, John W. Geary, George H. Beach, William M. Lent, John T. Little, David Fay, J. Cowell, Samuel Blake, John T. Wright, A. J. Morrell.

Rev. Albert Williams was one of the organizers and the first pastor of the First Presbyterian Church of this city, a position he long retained.

John W. Geary was San Francisco's first postmaster, and afterward first alcalde or mayor of the city. This was on August 1, 1849. In his first message, Mayor Geary called attention to the fact that the local government was without a place for the transaction of its business, without police and without means for the care of the indigent sick and the burial of paupers.

Third Pacific Mail Steamer.

The third steamer to arrive on the new line was the Panama. She took the same course from New York as the two that had preceded her, and arrived at San Francisco on June 4, 1849, under the command of Captain Bailey. She made the trip from Panama up in 17 days, against the California's trip of 28 days.

The Panama brought 290 passengers. Among these were Hall McAllister, William M. Gwin, Edward Pooley, John A. Collins, Samuel Ward, F. F. Low, Joseph Hooker (afterward General), Henry B. Livingston, E. W. McKinstry, G. H. Derby, J. H. Jewett, E. V. H. Cronise and John V. Plume.

Among the lady passengers by the same steamer were Mrs. Robert Allen, wife of Major General Allen, Mrs. John C. Fremont and Mrs. Alfred de Witt.

At San Diego the steamer landed the commissioners selected by the Government to locate the boundary line between Mexico and the United States. John B. Weller of Ohio, subsequently Governor of California, was chief of the commission.

Still another Governor of California was found among these passengers in the person of F. F. Low, who also became Minister to China and Superintendent of the United States Mint in this city, besides being one of the managers of a local bank.

Hall McAllister and E. W. McKinstry were prominent attorneys in their day, and the latter was elevated to a judgeship.

William M. Gwin was the first person chosen to represent California in the United States Senate, and was prominent in the political life of the State for years.

William M. Lent and E. V. H. Cronise took considerable interest in mining affairs.

Joseph Hooker took an active part as a General in the Civil War.

The Panama called at Rio on the way out from New York. Mr. Lynde of this city, who was at Rio at the time, noticed many vessels fitting out at that port for San Francisco, and taking from fifty to two hundred passengers. This exodus astonished the Brazilians, not only in the number departing, but also in the high character of the emigrants.

First Year Under Mail Contract.

Under the contract with the Government, the Pacific Mail Company was to maintain a monthly line between Panama and the coast for a consideration of $200,000 per annum for carrying the mails.

In view of the many obstacles that had to be overcome during that first year, some of which were entirely unexpected, it must be said to the credit of the company that eleven trips were made by the steamers under its control. There were also three other steamer arrivals from Panama in the same year. The record arrivals from Panama in 1849 were as follows:

ARRIVED.	STEAMER.	NO. PASSENGERS.
February 28	California	250
April 1	Oregon	250
June 4	Panama	290
June 13	Oregon	323
July 15	California	260
August 18	Panama	328
September 18	Oregon	412
October 3	McKim	113
October 10	California	339
October 27	Senator	160
October 31	Unicorn	166
November 1	Panama	320
December 1	Oregon	444
December 29	California	304

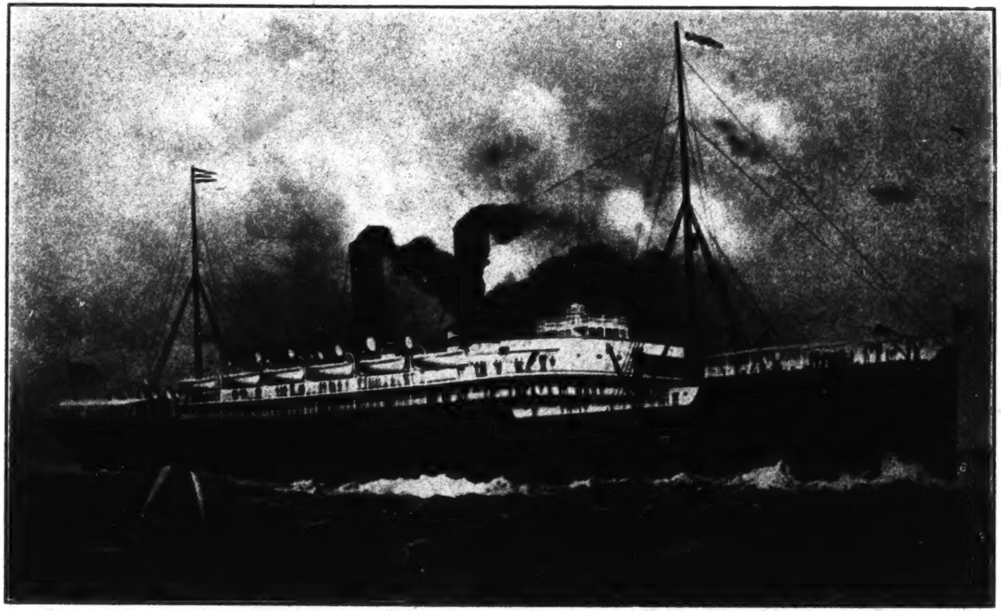
These steamers landed 3,959 passengers at San Francisco in the last ten month of 1849.

The first trip of the California was made in 28 days, while the three subsequent ones in the same year were made in 22 to 23 days. The Oregon made her four runs up in 20 to 21 days. The first trip of the Panama was covered in 17 days and the other two in 20 to 21 days.

The steamers McKim and Senator were sent out here on speculation. The former was a small boat and a slow sailer, and was about 30 days on the trip. The Senator came up in 21 days.

The Unicorn was formerly in the Atlantic trade, a British steamer in the Cunard line, and was chartered by the Pacific Mail Company for service between Panama and San Francisco. She was 650 tons register, and though much smaller than those in the employ of the company, had more cabin room and was therefore better adapted to the passenger traffic.

Subsequently added passenger accommodations were placed on the hurricane decks of the three steamers owned by the company. The Unicorn was brought into port by Captain Lapidge, and had a long run of 35 days from Panama.



The Siberia of the Pacific Mall Company.

Fate of First Three Steamers.

It must be said to the credit of the builders of the first three steamers for the Pacific Mail Company, as well as to those in charge of the same during their service in the Panama trade, that none of them came to an untimely end, nor did they ever meet with a serious disaster.

The steamer Panama was the first to retire from service. Her machinery was removed in 1865, and the hulk was sent to Central America for storage purposes in connection with the coffee trade.

The steamer Oregon was sold in 1869 to a local lumber firm, her machinery removed, and she was then converted into a bark bearing the same name, in which capacity she did service for several years in the lumber carrying trade between Puget Sound and this port, and it was while employed in that trade that she was wrecked.

The steamer California made her last trip as a steamer from San Diego, arriving here November 17, 1875. Soon afterwards her machinery was removed and the hulk was sold to N. Bichard. She was then bark rigged, and was for many years engaged in the coal and lumber trade.

The Other Three Steamers.

A good story is told of the steamer McKim. She was a propellor of 327 tons register, and in the summer of 1848 was in the harbor of New Orleans. When the story of the discovery of gold reached that city it elicited much interest. Some printers took in the situation and looked about for some means of transportation. It was ascertained that the McKim could be bought for $4,000 and that $4,000 more would fit her for the voyage. Eighty volunteers were solicited, each to contribute $100 and buy the McKim.

This plan having failed, the owner fitted her out himself and started for San Francisco via Panama, arriving here

October 3, 1849. She was well adapted to river navigation, and was just the kind of craft needed at that time for the river service between San Francisco and Sacramento. Though not a fast sailer she could make a trip of 120 miles in 14 hours, and so could make the run up every alternate day. She was sold for $60,000, and in three weeks after her arrival was in the river service, carrying passengers at $30 for the trip and freight at equally good rates.

The Senator was in the Boston trade before coming here. She was a side-wheeler of 750 tons register, and a fast sailer, and upon arrival was immediately placed on the Sacramento route, alternating with the McKim, thus forming a daily and satisfactory service between the two points. She was under the command of Captain Van Pelt.

On one of her trips in November, 1849, she carried 250 passengers up the river. Later, other steamers were put in the river trade, and by the end of 1850 there were 21 steamers in that trade.

Subsequently the Senator was placed on the coast trade, both north and south of this port, and in the meantime she also made several trips to Panama.

She had a variety of owners, and was at one time the property of the Pacific Mail Company. She was best remembered in the coast trade. She was a good earner and comfortable carrier. She made her last trip to this port under steam on May 8, 1882. Soon after, her machinery was removed and the hull was bark rigged by Auckland parties who had purchased the same. She was loaded and sent to Auckland in 1884.

The British steamer Unicorn was returned to England at the close of 1851.

Gold Seekers on the Run.

Emigration to California in 1849 was on a large scale. These emigrants represented all classes and conditions, and they came from all sources, domestic and foreign. The steamer service from Panama was entirely inadequate to the demand.

Nearly every steamer from Panama for San Francisco in 1849 left more passengers behind than it took. Even as late as November of that year the Oregon left 400 passengers behind at Panama, although she brought 444 on that trip, the largest list of any steamer for the year. In this list were thirteen females, an unusually large number.

Fortunately, all who desired to come to California in that year did not have to depend on the Panama steamers. Every sail vessel on the Atlantic Coast that could be pressed into the service was secured and headed for the Pacific. While these vessels were not fitted up for carrying passengers, they all took as many as they could find any kind of room for.

Of the immigrants who arrived at San Francisco in 1849 it was estimated that 35,000 came by sea, to which should be added 3,000 sailors who left their ships here. Land arrivals for the same year were put down at 42,000 and the population of the State at the close of the year was 100,000.

Competition on Panama Route.

Increased activity in entering tonnage for San Francisco was noted at the very beginning of the year 1850. A new line via Panama was started by George Law of New York. The Pacific Mail also increased its fleet.

George Law placed in the service the steamers Isthmus, New Orleans and Republic. The Pacific Mail added the Tennessee, Columbia, Northerner and others.

In addition, outside parties sent out some steamers direct from New York. Some of these made one or more trips to Panama and others went into the river and coast trade. It is probable that some of the steamers in the last named trade came out under sail and had their machinery installed upon arrival, as the imports included boilers and engines.

Some of these small steamers not noted in the arrivals direct from any point bore the names of Captain Sutter, Chesapeake, Eudora, Goliah, Sea Gull, Mint, and West Point. They were too small for long voyage business, but quite useful in the inland waters.

Second Year in Panama Trade.

From six steamers engaged in the Panama trade in 1849, the number rose to 21 in 1850 and from 14 trips in 1849 there were 41 trips in 1850. With one exception, all of the 21 steamers brought passengers on every up trip, the number varying from 22 to 495, while the total number was 7,118, against 3,959 in 1849.

The smallest number of passengers was by the British steamer Sarah Sands, chartered by the Pacific Mail, which arrived on her first trip December 17, 1850, with 22 passengers.

The steamer Tennessee, on her first arrival, April 14, 1850, brought 495 passengers, or 75 in excess of the Northerner, the next largest carrier. On her second trip the Tennessee had only 195, on her third trip 7 and on her fourth trip 65.

The steamer Isthmus made four trips, as did the California and Panama. The Northerner and Oregon made three trips, and the Carolina, Columbus, New Orleans and Republic each two. All the others made only a single trip. The steamer Confidence came up in ballast. The Columbia was a side-wheeler which went into the Oregon trade, while the Columbus was a propellor.

The Equador was a British tramp steamer, which returned to South America in 1851.

The Gold Hunter, New World, and Antelope went into the Sacramento river trade. The Antelope was a Staten Island boat. The New World was brought out by Ned

Wakeman, who remained in command for a time after she went into the river trade, but later returned to deep water service.

The steamers Confidence and Ohio came round the Horn under sail, the former in a passage of 7½ months and the latter in a trip of 145 days. The Republic of George Law's line was brought out by Captain Hudson, and the propellor Constitution by Lieutenant Bissell of the United States Navy.

The British propellor Sarah Sands was in the Atlantic trade. A gentleman from this city was at the Battery in New York upon her first arrival from Europe, when she was gaily decorated and attracted much attention. It was his opinion that she was the first iron steamer in the service.

Despite this large amount of steamer tonnage in the Panama trade in 1850, the steamer California on her last trip for that year reported 45 sail vessels at Panama, most of which were entered out for San Francisco.

Ship of State Launched.

Perhaps the most important event of 1850 was not any one or even all that have been mentioned in this story.

The real event of that year was the admission of the State of California into the Union. At the general election in November, 1849, a State Constitution was adopted and Edward Gilbert and George W. Wright of San Francisco were chosen Congressmen. At the meeting of the Legislature in January, 1850, W. M. Gwin and J. C. Fremont were elected United States Senators.

To these gentlemen were entrusted the important service of introducing California into the sisterhood of States and of seeing that she became a member of the glorious Union.

There was some opposition on the ground that she wanted to come in as a free State. The vote in the Senate was taken August 10th and stood 34 to 18, and on the 7th of September the House voted 150 to 56 in favor of admission. Two days later the President signed the bill and the free States then claimed a majority in the Senate.

The ship of State as represented by California, entered the Union September 9, 1850, under full sail, and has since successfully weathered every storm.

News of this event came to hand soon afterwards, but the details were withheld until they could be brought by steamer, and the arrival of such steamer was waited rather impatiently.

The captain of the steamer having these details was instructed to fire signal guns on approaching the harbor. On the morning of the 18th of October such guns were heard, and all the population of the town rushed for the water front and other eligible sites.

It was given to the Oregon, Captain R. H. Pearson, U. S. N., to be the bearer of the glorious news, and both he and all the other officers, and even the city itself, seemed to realize the importance of the errand.

The scene that followed the appearance of the steamer off Clark's Point was one never to be forgotten by those who participated in the same. Extras published an hour after the arrival were readily sold at from one to five dollars.

The 9th of September has been annually commemorated ever since, and in 1880 Governor Perkins, under authority of the Constitution, set apart that date as a legal holiday, and that has been the rule ever since.

Isthmus Service Increased.

The year 1851 developed a further increase in the steam service between the Isthmus of Panama and San Francisco. Instead of one line with six steamers and fourteen trips,

as in 1849, and two lines with twenty-one steamers and forty-one trips, as in 1860, there were thirty steamers and seventy-four trips in the four lines in operation in 1851.

The year was a stirring one in the history of San Francisco. Perhaps the most prominent events in 1851 were the foundation and work of the Vigilance Committee, which sought to minimize the criminal element, and the first big fire on record.

The losses by this fire were heavy. Among other public buildings destroyed was the Customs House, and with it went all the official records of tonnage, passenger and merchandise movements for 1849, 1850 and the first half of 1851. The newspaper files for that period furnished the only information along those lines that has since been available to writers for the press and historians. It is fortunate that even that much has been saved.

The Pacific Mail Company established a semi-monthly service in 1851 and two new lines were also established. One of these new enterprises was known as the J. Howard & Son's line and the other was the Nicaraguan, or Vanderbilt line.

The last named line on this side consisted of two steamers sent out from New York to run from San Juan to San Francisco. These were the Independence and North America. On her first trip the former came here direct from Panama under command of Captain Tibbitts. She arrived here on July 11th with 100 passengers. On her second trip up she hailed from San Juan and was in charge of Captain Ned Wakeman, and brought 55 passengers. On her second trip from San Juan she had 200 passengers.

The North America, under command of Captain Blethen, arrived here on her first trip from Panama via San Juan October 2d with 240 passengers. She made one

other trip up that year, arriving here November 28th with 360 passengers, an evidence that she was popular with the traveling public.

Some time in 1850 the Pacific Mail Company let a contract for a much larger steamer than any in the Isthmus service. This steamer was launched and sent to Panama in 1851. This was the Golden Gate, 2,067 tons register, just double the size of the original three built for the company in 1848.

The Golden Gate was under the command of Carlisle P. Patterson of the United States Navy. She made the trip from New York via the Straits of Magellan in 64 days and 9 hours and 13½ days from Panama, arriving at San Francisco November 19, 1851, with 458 passengers.

This was the fourth steamer built for the Pacific Mail Company, and she was up to date in every respect, being regarded as the equal of the best side-wheeler afloat at that time.

In the list of arrivals from the Isthmus in 1851 were thirteen steamers that had never before been in that service. One of these was the Pacific, which, after making two trips up from Panama, was placed on the Nicaraguan route, arriving here for the first time in that service on October 16th with 250 passengers.

Isthmus Passengers for Third Year.

Mention has been made of the number of passengers arriving by steamer from the Isthmus in 1849 and 1850. It is now in order to report the number of 1851, which was 13,079. The writer has these lists for those three years as copied from the manifests, showing the number on each steamer, but not the names.

Three of the steamers in 1851 had no passengers and several others had less than 100. One had only 7. The larger and more prominent steamers had from 100 to 600. The Tennessee on her last trip for the year brought the record number.

The Tennessee made six trips up that year, the Oregon and Panama each five; the California, Columbus, Isthmus, Pacific and Republic each four; the Carolina, Independence, New Orleans and Northerner each three; the Antelope, Columbia, Constitution, Gold Hunter, Monumental City, North America, Sarah Sands and Union each two, and the remainder a single trip.

Among the new steamers in the trade in 1851 were the Commodore, Commodore Stockton, Massachusetts, Monumental City, Washington and Wilson G. Hunt from domestic Atlantic ports; Fremont, Gold Hunter and Union from Mexico and Central America, and British steamer Concide from Havre.

Tonnage on the Rivers.

Most of these vessels went into the river trade immediately upon arrival, and proved both useful to the public and profitable to the owners.

Steamer traffic on the Sacramento and San Joaquin rivers in those early years attracted quite as much attention as did the passenger steamers in the Isthmus trade.

These were the only practical routes for reaching the mining district to the north and east of San Francisco. This was the primal base for all supplies dependable upon water transportation. All cargoes from coast, domestic Atlantic and foreign ports were discharged here, and the unloading of the many vessels rushed here with cargoes of merchandise and produce of all descriptions gave to the water front daily scenes of great activity.

Large consignments of these goods were hurried to the interior by the river boats, which went to the limits of navigation.

Treasure seekers arrived in San Francisco by the hundreds and thousands, but comparatively few of them remained. The great mass sought the earliest opportunities to get to the front, and paid well for passage on the river boats.

Events of Fourth Year.

Among the steamers first mentioned in the Isthmue lines in 1852 were the Brother Jonathan, Cortez, S. S. Lewis and Winfield Scott. The first named were placed on the Nicaraguan route. The Winfield Scott was consigned to Macondray & Co., and ran as an independent boat for a time, making three trips that year.

The New Orleans was running in a line known as the Empire City. Captain Budd brought out the Brother Jonathan and Captain Cropper was in command of the Cortez. Both were in the Panama as well as in the San Juan trade.

R. Vandewater was the first agent of the Nicaraguan line in this city. He was succeeded by L. M. Cross in 1852, and D. Bingham was his successor.

In October, 1853, C. K. Garrison took the agency. He had previously been Vanderbilt's agent at San Juan. Two or three new steamers had been added, and a vigorous opposition was waged against the Pacific Mail.

Mr. Garrison became quite popular with the general public and was elected mayor of the city in September, 1853.

Loss of North America—Vanderbilt Line.

The burning of the steamer North America at San Juan about the 1st of January, 1852, was the first serious loss among the Isthmus steamers. This steamer was placed on the San Juan route in 1851, arriving here on her first trip October 2d, and on her second trip in November.

Soon after her return to San Juan from this port, and while she was being prepared for her third voyage to San

Francisco, she was burned. At the time she was waiting the arrival of the Northern Light from New York at Greytown with 1,500 passengers. When these reached San Juan and learned of the loss there was great disappointment. In crossing, some had sickened and died, and others died at San Juan before relief came.

When the Pacific Mail Company's steamer Golden Gate came off port, and the people were informed that her accommodations were all taken, they were simply furious, and it was planned to capture the steamer and compel the officers to take at least the women and children.

But for the arrival just then of the relief steamer S. S. Lewis the threat would have been executed. When the Lewis arrived at San Francisco on July 9, 1852, she reported only 653 passengers.

More Steamers Arrive.

Of the new steamers run for the first time between the Isthmus and San Francisco in 1853, the following three are noted: Sierra Nevada, John L. Stephens and Uncle Sam.

The Sierra Nevada arrived on her first trip from Panama on March 23d under command of Captain Wilson, who reported a trip of 14 days. She went into the Nicaraguan line, and made five trips from San Juan that year, two of which were performed in 11 and 11½ days, respectively. This time has rarely been equaled, and so far as can be remembered never surpassed.

The John L. Stephens was brought out from New York by Lieutenant Carlisle P. Patterson and arrived at San Francisco on April 3d in a trip of 14 days from Panama. She was also a fast boat, with an oscillating engine which seemed to go all over her. She once made the trip in 11 days. Her rig was peculiar, the two masts being set far apart. Stopping at Rio, the British admiral noticed this feature and sent his compliments to the commander, saying that he had a spare mast that he would give him.

Lieutenant Patterson thanked the admiral for his courtesy, but said his vessel was rigged according to the wishes of its owners. The John L. Stephens cost $153,000 and was a very profitable boat in its best days.

The Uncle Sam was brought out by Captain Mills, and arrived here for the first time September 19, 1853, and was the pioneer of what was afterwards known as the Cross & Mills line, of which G. B. Post was for a time agent.

The Yankee Blade, Captain Randall, which arrived here in 1854 from Panama, went into the Cross & Mills line.

Other American steamers arriving here in 1854 were the America, Mitchell, 84 days from New York; Arispa (propellor), Wilcox, 159 days from Philadelphia; Sonora, Whiting, from New York via Panama; Golden Age, Dow, via England, Australia and Panama; Underwriter, Nash, in ballast from Philadelphia, and Surprise, Wakeman, from New York.

The America was immediately put in the Oregon trade by Vandewater. The Arispa was placed in the North Coast trade. The Sonora and Golden Age were placed in the Panama trade by the Pacific Mail Company.

The steamer Golden Age was first sent to England as a speculative venture. In going into port at Liverpool she damaged the wharf considerably, but when placed in dock was found to be only slightly injured, though at the time of collision she was under much headway.

From England she was sent to Australia, and somewhere on the voyage out, or just after her arrival, she was purchased by the Pacific Mail Company as a companion to the Golden Gate, being about the same tonnage. She was immediately headed for Panama, and remained in that trade for several years, both being the most capacious boats on the route in 1854.

Among the foreign steamers arriving in 1854 were the Otter from Victoria and the Polynesia from Honolulu, both under the British flag.

The following steamers, not previously mentioned, were in operation in the domestic Pacific Coast trade in 1854; Crescent City, Major Tompkins, Peytona, Sea Bird, Southerner, Thomas Hunt, Humboldt and Willamette.

Loss of Yankee Blade.

The second serious disaster in the Panama steam lines was the loss of the Yankee Blade in the Cross & Mills line.

Like the North America in Vanderbilt's line, this steamer had a short history and a tragic end, and both at the time were in command of the men who brought them out from the East.

The Yankee Blade arrived here in 1854 and made three trips from Panama to this port in that year, arriving for the third time on August 30th. On September 30th three steamers sailed from this port for the Isthmus. These were the Cortez for San Juan, and the Sonora and Yankee Blade for Panama.

On that trip out the Yankee Blade had 819 passengers, including 32 females and 31 children. It was suspected that in addition there were 30 to 50 stowaways.

Soon after passing out to sea a dense fog was encountered, and at 3 p. m. October 1st the vessel struck violently on a reef off Point Arguello, ten miles northwest of Cape Concepcion. The attempt to back her off fortunately failed, as she would have sunk immediately. In the launching of the first boat, 18 were drowned. The others were taken off safely and landed at San Diego. The vessel disappeared in the deep water.

Other Changes in First Decade.

In 1851, the British steamers Ecuador and Unicorn were returned to their home ports, the former in South America and the latter in England, and the General Warren and Major Tompkins were wrecked, the former off the Colorado river bar.

In 1852 the British steamer Sarah Sands, a propellor that George Law brought out from England, and which was nearly a year in getting here from New York, was sent back, and the North America was burned at San Juan, as already mentioned.

In 1853, the Ohio was sent to South America and the Thomas Hunt to China.

In 1854, the Tennessee, which performed satisfactory service in the Panama passenger trade in 1850, 1851, 1852 and 1853, was wrecked in 1854, while under the command of Captain Mellus, on the Northern California coast at a point since known as Tennessee Cove.

Other steamers wrecked in the same year were the Arispa, S. S. Lewis, Union, Winfield Scott and Yankee Blade. The Arispa met her disaster near Fort Ross. The S. S. Lewis went to grief on Duxbury reef. The Union met her fate at San Quentin. The Winfield Scott went ashore at Point Ano Nuevo. She was hauled off and sold to the Pacific Mail Company. The new owners put her in seaworthy condition, gave the command to Captain Blunt, and after receiving cargo, she was cleared for Panama, but was lost on the Anacapa Island in the Santa Barbara channel, and it is reported that Captain Blunt died shortly after broken-hearted.

In the same year the Commodore Stockton was sent to South America and the Monumental City and New Orleans to Australia.

It was reported that the last named steamer was theoretically in the hands of the sheriff on the other side, and that Ned Wakeman jumped aboard and gave the officer the slip.

In 1855, the Carolina, a screw steamer which had been used as a tug by Millen Griffith, was sold and sent to Calcutta, and the Chesapeake was wrecked.

In the same year the British steamers Peytona and Polynesian were sent to Chile. Both were propellers and were built at Philadelphia for account of R. F. Loper. They were intended for a line between Honolulu and Portland, with San Francisco as a port of call. The Polynesian once left Honolulu for Portland in company with the schooner Vaquero, but was outdistanced by the sail.

Four disasters were reported in 1855, when the America, Independence and S. B. Wheeler were wrecked and the Underwriter was burned. The Independence went ashore on Margarita Island, when she took fire and burned.

The Underwriter was a new tug sent out from the East via the Horn, for account of Harry Meiggs, and intended for his lumber mill service at Mendocino, but before her arrival Harry had skipped to South America. She was tied up her for two years and then sent to China, where she was destroyed by fire.

No disasters were reported in 1857, but they were somewhat prolific in 1858, when the Cortez and Sea Bird were burned and the Sea Gull and West Point were wrecked. The McKim, having outlived its usefulness, was broken up.

In 1859, the Santa Cruz, which went into service in 1853, was burned.

The little steamer Fremont, built in the East in 1850 and brought to this coast in 1851, is still in existence, though not at present in active service and no longer a steamer, her machinery having been removed many years ago. Of late years she has been employed in the Bering Sea codfish trade, annually bringing good cargoes of fish to San Francisco.

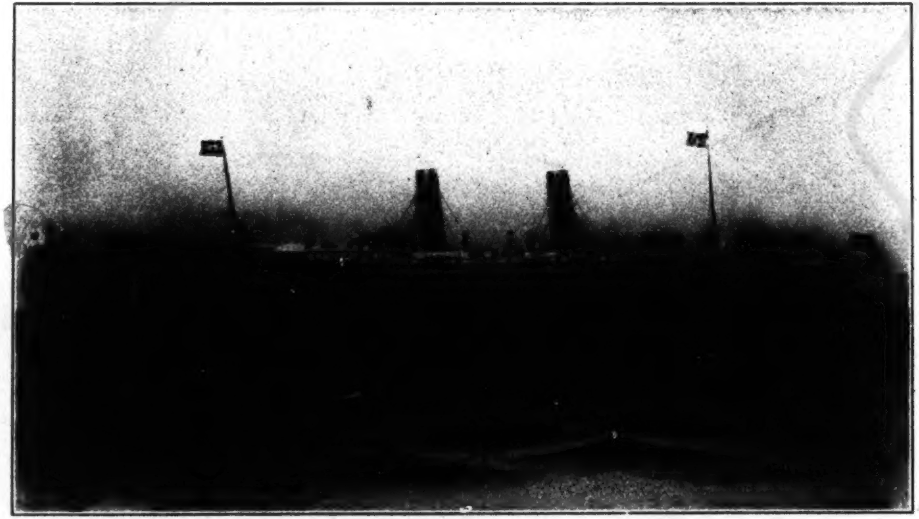
Slow Steamer Makes Fast Time.

A good story is told of the Chesapeake, a large propeller, suitable for either coast or river service. She had been purchased by Mr. Vassault for $5,000, and Captain Brenham was given a quarter interest in her. No sooner had this bargain been completed than another would-be purchaser came to the front in the person of Mr. Wainwright. Asking the price, he was told that he could have the steamer for $25,000, which was a pretty stiff advance, though in the interval the Gold Bluff mining excitement at Eureka, in Humboldt county, had developed a good demand for steamers. Before accepting the offer, Mr. Wainwright insisted on a test of speed. This was considered a reasonable request, and Captain Brenham readily responded. Quietly taking the steamer to Mission Bay, and waiting for the usually strong ebb tide to get busy, the steamer was started for the test trial along the water front and toward the Golden Gate. Being in ballast, it is said that she went by the trial commission with all the speed of a railway train under a full head of steam. Of course, Mr. Wainwright took the steamer. He immediately secured a charter for her to make a trip to the Gold Bluff mines for $6,000, but it took her a month to complete the trip usually made in three days.

Panama Railroad.

For the first six years after the gold discovery had been made public, the crossing of the Isthmus between the Atlantic and Pacific oceans was attended with many risks and hardships and at much expense. An early effort was made to minimize these obstacles.

A route across the Isthmus was located by Colonel Hughes, and the engineering was conducted by Colonel Totten. The extreme length of this route between Aspinwall on the Atlantic side and Panama on the Pacific was 49 miles.



The Tenyo Maru of the Toyo Kisen Kaisha.

As soon as these preliminaries were completed, a company was incorporated in Albany, N. Y., on April 7, 1849, to build a railroad on the survey made. Work was begun in 1850, and at one time as many as 5,000 men were employed. The cost of the enterprise was estimated at $5,000,000, but the actual outlay was $7,500,000.

The road was opened on January 28, 1855. For the first few years the transportation averaged 31,000 passengers, 66,000 tons freight and $55,000,000 in gold per annum, netting an income of $1,300,000 at an expense of $350,000.

The completion of this road was an important event, and meant very much to the Pacific Coast and indirectly to the whole country. The improvement was a costly one, both in treasure and in the sacrifice of life in its construction, on account of inhospitable climate and unsanitary conditions. The mortality among those engaged in the work was fearful. Before the road was finished a portion had to be rebuilt because of the miry character of the ground in some places.

The cost of the road was excessive and a severe tax on the faith and courage of the promoters. Railway builders consider that they go near the limit when the expense amounts to $50,000 per mile. But in this case the estimate was $100,000 per mile, while the actual outlay was $150,000 per mile.

The most expensive part of the road was the iron bridge spanning the Chagres river, which rests on stone abutments and cost $500,000.

Probably no road of equal length in any part of the world has been more appreciated or remunerative.

Crossing the Isthmus in the early days before the completion of the railroad was attended with many scenes both droll and dreary, pathetic and tragic.

Tickets for San Francisco did not include transit across the Isthmus, and sometimes very high prices were paid, from $50 to $75 for a single person, including baggage.

Necessary supplies in crossing were charged for according to the supposed ability of those requiring them, and often paid for according to common sense rates without much regard to the prices asked.

One of the first group of emigrants to cross wanted a chicken for a sick woman. This was procured for fifty cents, but the natives demanded two dollars for the loan of the kettle in which to cook it, and received twenty-five cents and a wave of the hand to be off and say no more about it or there would be trouble.

There was general complaint about the food and fare on the early steamers. Some of these were no doubt well founded. Wormy bread was sometimes detected in the steerage, and the men organized themselves and demanded at least wholesome food.

It was noticed, however, that passengers who returned home in the early fifties made less complaint about poor food and accommodations than the same people did in coming out. This rough camp life in California helped them to appreciate steamboat fare, poor as that might be.

There was much speculation in tickets both at Panama and San Francisco. High premiums were often exacted and paid. In the winter of 1849, steerage tickets from San Francisco to New York were $150, and some of these were resold as high as $450, because of anxiety to return home.

Parties who had not come through from New York on the regular lines had to resort to all sorts of measures to get even steerage passage from Panama to San Francisco, and some hard-up cabin passengers sold their berths for big sums and went to the steerage, so that they might have money upon arrival at San Francisco.

The above are only a very few of the illustrations of similar character that might be cited to show what men will do and sacrifice in their search for gold. The completion of the Panama railroad eliminated a repetition of these experiences on the Isthmus.

Suspension of San Juan Service.

Two causes led to the temporary suspension of the steamers between San Juan and San Francisco. Evidently one of these was the opening of the Panama railroad, which gave travelers easy, comfortable and economical transit across the Isthmus, thus shortening the time between New York and San Francisco.

The other was the seizure of the Vanderbilt steamers at San Juan by Walker, the filibuster. This was near the close of the year. Garrison, however, who had been Vanderbilt's agent at San Juan, owned the Sierra Nevada, and his steamer was not molested by Walker. The Sierra Nevada made seven trips from San Juan in 1856, but only one in 1857. The last one ended at San Francisco in February of that year. She was then withdrawn. The only other steamer from San Juan in that year arrived at San Francisco in the same month, and was then transferred to the Panama service.

The San Juan route was reopened in 1863 by W. H. Webb, who placed in the service the steamers America and Moses Taylor. The latter was known as the rolling Moses.

For a time these steamers were commanded by T. H. Morton and J. K. Blethen. Subsequently and for some time afterwards, the America was in charge of William L. Merry, of San Francisco. In 1887-8 and 1888-9, Mr. Merry was president of the San Francisco Chamber of Commerce, and later for many years the United States Minister to Nicaragua.

The San Juan route was finally abandoned in 1868. Service on that route began in 1851, when six trips were made to San Francisco. In the next four years the ships varied from 21 to 25, dropping to 16 in 1855 and 2 in 1857.

After a suspension of service for five years, the route was reopened in 1863, and five trips were made in that and the following year, with 11 in 1865 and 12 and 17, respectively, in the following two years, and 4 trips in 1868, when the service was permanently dissolved and the steamers engaged in the last year were run to Panama.

The total number of steamer arrivals at San Francisco from 1851 to 1868, both years inclusive, on the San Juan route was 171, representing 215,643 tons of tonnage. Some of these steamers came by way of Panama.

Numerous Isthmus Lines.

From a single line employing three steamers in 1849 in the Isthmus and San Francisco trade, the business grew in a few years to some half a dozen lines and over a score of steamers.

According to the San Francisco directory for September, 1852, there were four lines in operation at that time, namely, Pacific Mail Company, Vanderbilt line, Empire City line and the New line. Three other lines previously in operation were those of George Law, John Howard & Son and Cross & Mills.

Some of these lines started in opposition to the Pacific Mail Company were of short duration, but before one fairly dropped out another took its place. Some of these steamers came into direct competition with the Pacific Mail line, but most of them were harmless rivals, content to take the overflow of the passenger traffic.

In 1852 and again in 1853 there were 70 arrivals at San Francisco from the Isthmus, as represented by the four lines then in operation. The arrivals from 1851 to 1853, both years inclusive, were more numerous than for any similar period in the history of the service.

Lull in Steamer Movement.

For some years subsequent to 1854 the new steamers added to the Isthmus lines were not plentiful. Not a single one is remembered in 1855 and only one in 1856.

This was the Orizaba, 1,244 tons, brought out from New York by Captain Tinklepaugh, who in 1863 commanded the steamer Ariel of the Vanderbilt line between New York and Aspinwall.

The Orizaba arrived at San Francisco on her first trip of 11 days from San Juan in October, 1856. She made two other trips from the same port, and then was placed on the Panama route.

After her permanent withdrawal from the Isthmus service, she was run for many years in the San Diego trade, and was one of the last of the side-wheelers to leave the field. She was dismantled in 1887.

In June , 1859, the steamer Washington, 1,640 tons, 157 days from New York and 17 days from Panama, made her first appearance in this harbor, with 266 passengers. She was subsequently run for a short time on the Panama route and was broken up in 1862.

In 1860 there were four steamers sent out from New York to this coast. These were the Champion, Granada, Moses Taylor and Oregonian. The last named two were placed in the Panama service.

The Granada was brought out by Captain Howes as an opposition steamer. She was 1,095 tons, and reported herself as 90 days from New York and 20 days from Valparaiso. She came in sight of the port, but never entered, having run on the rocks near Fort Point.

The Champion was 1,419 tons, and was entered as 16 days from Panama with 400 passengers, consigned to Wright & Baldwin. This was the first iron side-wheeler to visit this coast, and was slow and sure.

Two steamers from the outside came to hand in 1861. These were the Hermann, 1,734 tons, from Japan via Victoria, and the St. Louis, 1,621 tons, from New York. Both were owned by the Pacific Mail Company. The St. Louis reported 79 days from New York via Panama. Both were in the Panama trade for a time. The Hermann was finally sent to Japan, where she was wrecked in 1869. The St. Louis was broken up in 1870.

Retirements in Second Decade.

From 1860 to 1869, quite a decimation was effected in the list of steamers employed in the foreign trade of San Francisco.

In 1860, the Granada, Labourche, Northerner and Southerner were wrecked and the Confidence was dismantled and turned into a barge.

The Labourche was under the British flag and came in from British Columbia in 1859. She belonged to the Hudson Bay Company and her engines were built for the exhibition in London in 1851. The hulk was built of teak and oak on the Clyde, and her cost was $175,000. She was wrecked off Point Reyes in 1860.

The Southerner was known as the Isthmus in 1850. She was wrecked off Cape Flattery.

The Surprise was in this port in 1854, and was burned in China in 1861.

In 1862, the propeller Champion returned to New York, the Columbia was burned in China and the Washington was broken up.

After her arrival in China the Columbia was put under the British flag, and this seemed to be an incongruity for a steamer bearing that name.

So far as can be remembered, there was no disaster to the local deep water steamers in 1863 or 1864. The most distressing event in 1865 was the loss of the Brother Jonathan. At the time this vessel was the property of the California Steam Navigation Company, and was on her way from San Francisco to Victoria with 109 passengers and a crew of 54, with Captain DeWolf in command. A full account of this disaster will be found on another page.

The Republic was broken up in the same year. The Columbus was wrecked in 1866, the John T. Wright was burned in 1867, and the Forward and Oregonian were wrecked in 1868.

In 1869, the steamers Gold Hunter, Hermann, Sierra Nevada and Tynemouth (British) were wrecked. The America, which arrived in 1856, was burned at Panama in 1869.

Turn in Pacific Mail Affairs.

After about a dozen years of fair prosperity had been enjoyed, the managers of the Pacific Mail Company were confronted with what appeared to be a severe trial of faith.

During this interval the company had secured the control of a number of steamers of 1,000 to 2,000 tons burthen, either by construction, purchase or charter, but only two of the whole list registered upwards of 2,000 tons. These were the Golden Age and the Golden Gate. The former was built for George Law, but purchased by the Mail Company while she was voyaging round to secure a buyer in a foreign port.

There were two problems involved in this crisis. One related to the perpetuity of the mining industry on the scale with which it had been operated. A more difficult problem was the fact that the country had become involved in a gigantic civil war, the outcome of which no living person could foretell.

Upon the turn of these two events rested the success or failure of the proposition to build more and larger steamers, involving the investment of millions of dollars.

The proposition under consideration by the company was the construction of four wooden side-wheelers to be double the size of the largest two then in service.

It is no wonder that there was some hesitancy in deciding such a momentous question at that particular time and under those particular circumstances.

At last it was agreed that these steamers should be built, and the contract for the same was let with instructions to proceed with the work as fast as possible. As soon as finished they were despatched to the coast, one following the other at short intervals.

The first to be sent out was the Constitution, arriving here October 5, 1862, under command of Captain Eldridge. As at that time the Government was making a serious effort to uphold the constitution, the name of the first of the new fleet was quite appropriate. The Golden City came out in 1863 under command of Captain Pearson. The Sacramento arrived September 7, 1864, under command of Captain Bradbury, who also brought out the Colorado on July 1, 1865. The last named was the largest of the four, registering 3,728 tons; Constitution, 3,573; Golden City, 3,593; Sacramento, 2,647 tons.

These four steamers were placed in the Panama service as fast as they arrived on the coast, and formed a new departure in its history. Experience had shown that such large steamers could be run safely and profitably in the Pacific. They were the finest steamers afloat anywhere in the early sixties, and passengers in the company's line on the other side of the Isthmus at once noticed the difference with favorable comments on the same.

In 1866, the Montana, a side-wheeler of 2,670 tons, companion of the Sacramento, was brought out by Captain Bradbury, in a trip of 87 days from New York and 14 days from Panama.

The Arizona and New York were of the same class of side-wheelers, and the last of that class ordered built under 3,000 tons register. The former was 2,793 tons and the latter 2,217 tons.

At first both of these steamers were in the service of the company between New York and Aspinwall. Later they were withdrawn from that route and sent to San Francisco via the Suez Canal and Hongkong, one arriving in 1868 and the other in 1871.

Larger Steamers Ordered.

The next act in the shipbuilding line by the Pacific Mail Company was an order for the construction of five side-wheelers of 3,800 to 4,500 tons register. These were intended more especially for the China trade, which had been only recently opened, though all saw some service in the Panama trade.

These new steamers were named Alaska, 4,012 tons; America, 4,454 tons; China, 3,856 tons; Great Republic, 3,882 tons, and Japan, 4,352 tons. These were $1,250,000 steamers, the most expensive that had been built up to that time.

In a statement of the company's assets for 1871 the Alaska was valued at $964,000 and the other four at $1,006,000 to $1,058,000 apiece. Outside of these, the most valuable steamer was the Colorado, $750,000. The same statement credits the company with owning 20 steamers of an aggregate value of $11,843,535.

The China and Great Republic were brought out in 1867, the former by Captain Bradbury and the latter by Captain Doane, 76 and 78 days from New York. Captain Bradbury brought out the Japan in 1868, Captain Doane the America in 1869, and Lieutenant Maury the Alaska in 1871.

The Alaska came by way of Hongkong, having been sent out in company with the Arizona as extra steamers for the tea trade, owing to the pressure of freight that season.

The Alaska arrived here September 1, 1871, with 54,565 packages of tea, 282 bales of raw silk and other freight, the most valuable cargo received at San Francisco up to that time. Of the consignment of tea, 45,200 packages were in transit for New York, Boston, Chicago and St. Louis.

Before the Alaska left Hongkong, the two steamers to follow her (China and Arizona, latter an extra) were engaged full. The Arizona arrived here on her first trip October 7, 1871, from New York via Yokohama under the command of Captain Austin.

These were the last side-wheelers built by the Pacific Mail Company.

The Webb line sent out from New York for the Pacific trade in 1867, the Nevada, under Captain Kelly, 78 days from port, or 56 days 19 hours running time; the Nebraska, Captain Horner, in 1868, in a trip of 79 days; and Dakota, Captain Ingersoll, in a trip of 90 days. These steamers averaged 2,150 tons register.

In 1872, Webb sold these steamers and the Moses Taylor to the Pacific Mail Company.

First Iron Steamers in Mail Line.

The Pacific Mail Company took up iron shipbuilding for the first time in the early seventies. Not only was wood abandoned in construction, but paddle wheels as well. Only iron or steel propellers have been built or purchased by the company since 1870.

Several classes of these steamers have since been turned off the stocks, namely, 1,500 tons, 2,000 to 3,500 tons, 4,000 to 5,200 tons, and later still larger ones.

The first iron steamers sent out were for the Panama trade. These were the Acapulco, Colima and Granada, 1,759 tons, 3,836 tons and 2,572 tons, respectively, the Colima arriving here January 6, 1874, under command of Captain Griffin in a trip of 90 days, and the Granada, March 8, 1874, under Captain Seabury, 78 days. The Acapulco came out later.

The next installment of iron steamers built for the Pacific Mail Company were named after cities, and intended for the Australian and China trades.

These were the City of New York, City of Para, City of Panama, City of Rio de Janeiro, City of San Francisco and City of Sydney, ranging from 2,000 to 2,500 tons, and the City of Peking and City of Tokio, each 5,080 tons. Four of these arrived in 1875, two in 1876, and one, the City of Rio de Janeiro, 3,548 tons, in 1881. The Newport was added later.

In 1882 and 1883, three more iron steamers were sent out for the Panama trade. These were the San Blas, San Jose and San Juan, each a little over 1,500 tons register. These steamers were first in the service of the company between New York and Aspinwall, as were also some of the others, which were subsequently transferred to the Panama route, including the City of Para and Newport.

The iron propeller Starbuck, 1,548 tons, was purchased by the Pacific Mail Company, and arrived here from New York via China in 1886.

The City of Peking and the City of Tokio were built by the late John Roach, who in his day was the leading shipbuilder in the United States. The history of his effort to introduce iron shipbuilding is one of the most interesting in maritime literature. His first contract for an iron vessel came from C. H. Mallary & Co., and subsequently he built several more for the same firm, all for the Atlantic trade.

Within the next decade, Mr. Roach built 80 iron ships, varying from 1,500 to 4,500 tons, including 23 of 6,200 tons for the foreign trade.

The contract for the City of Peking and City of Tokio called for steamers of 4,000 tons, but Mr. Roach, anticipating that foreigners would build larger vessels, laid his keels for 5,200 ton vessels.

These two steamers were the largest iron steamers built in this country up to that time. They were immediately placed in the China trade.

The City of Tokio was wrecked on the Japanese coast in 1885. The City of Peking continued in the China service for many years and was considered one of the best that the company had in operation. In her last years of service she was on the Panama run. She was broken up in this harbor in 1909.

In 1892, the iron steamer Peru, 2,540 tons, was built at the Union Iron Works in this city for the Pacific Mail Company, and placed in the China trade. Of late years she has been on the Panama route.

The steamer China of the Pacific Mail line, which completed her one hundredth trip in January, 1911, is not the steamer of the same name and owners that arrived here in 1867. That steamer was a wooden side-wheeler which was broken up in 1885.

The China, since in service in the tea trade, is a steel propeller, and was built in England in 1889. The wooden steamer China was 3,836 tons, while the steel steamer China is 3,186 tons. Her twenty or more years of service has been quite satisfactory to her owners. She was first placed under the Hawaiian flag and given American registry upon the annexation of the islands.

Several other steamers have been in the service of the Pacific Mail Company either through ownership or under charter.

Among these may be mentioned the steamers Clyde, Costa Rica, Crescent City, Salvador, South American and

Winchester, not to mention some later ones in the China trade, under charter.

The steamers Algoa, Aztec and Barracouta are owned by the Pacific Mail Company by purchase and belong to the Pacific fleet.

Losses in Pacific Mail Service.

The Pacific Mail Company has been running steamers for upwards of sixty years, and has been a good customer of the shipbuilding industry, having built or purchased over 60 steamers. These have been in service on all routes in the Pacific Ocean and China Seas, and also between New York and Colon in the Atlantic Ocean.

Considering the large fleet which has been in operation during this long interval, the company has been exceptionally fortunate in the loss of life and property.

This immunity cannot be credited entirely to good luck. Some of it at least has been due to good management and to the selection of capable commanders and other officers. In the early history of the organization, the most capable men available were chosen for the quarter-deck, including many careful selections from the United States Navy.

The first serious loss recalled was in 1853, and on the Atlantic side, while the first of a similar kind on the Pacific was in 1862. Eight years elapsed before there was another.

The loss of three steamers in twenty years, in view of the large number in service, is not a bad record.

Loss of the San Francisco.

The first of the Pacific Mail Company's steamers lost was the fourth built. This was the San Francisco, built under the superintendency of Captain Watkins, who was given the command when ready for sea.

Three days prior to Christmas in 1853, she dropped down the bay of New York for San Francisco via the Straits of Magellan with the Third Artillery, U. S. A., on board.

Two days later, when in the Gulf Stream, she encountered a terrific storm, during which her machinery was disabled, when the great hulk became a plaything in the arms of the sea.

The wreck floated about for eight days, when the passengers and crew were taken off by the bark Killey from West Indies for New York, the British ship Three Bells from Liverpool for New York and the American ship Antarctic from New York for Liverpool. Night came on before the last were taken off, and when the next morning dawned the steamer had sunk.

Captain Watkins, part of the crew and some of the younger officers subsequently reached New York via England in a Cunard steamer chartered for the purpose by James Buchanan, the American Minister.

Loss of the Central America.

A serious loss of life and property in the California trade occurred in 1857 off the coast of Florida, in the sinking of the Central America, under the command of Lieutenant Herndon, while en route from Aspinwall to New York with a passenger list of 582 and $1,500,000 in treasure.

The steamer sprung a leak in a heavy storm, and though she did not sink for thirty-three hours, it was known and realized that she was doomed from the start.

At 3 p. m. of the second day, a brig which had been through the same storm, came near enough to offer to take off the passengers. With this relief in sight and everyone's life dear unto himself, the men said let the women and children first be saved.

With such small boats as could be used in the rough sea, and before night came on, twenty-six women, twenty-seven children and four men had been transferred to the brig. The steamer in the meantime was steadily sinking. A man with a life-preserver insisted that another man should take it because his wife was aboard the brig. Both men were saved.

At 8 p. m. the steamer took its final plunge and 418 were drowned, including the gallant Herndon, whose young wife was waiting his arrival in New York.

Loss of the Golden Gate.

The first loss of the company in the Panama trade was the Golden Gate. This steamer left San Francisco for Panama on February 21, 1862, with 242 passengers and a crew of 96, or a total of 338, including 311 adults and 27 children, a valuable cargo of merchandise and $1,400,700 in treasure. She was under Captain Hudson.

On the seventh day out, which was Sunday, the usual services of the Episcopal Church were held in the morning, and at 4:45 p. m., while the cabin passengers were at dinner, a messenger suddenly approached Captain Hudson with the announcement that the ship was on fire.

Captain Pearson was returning to New York as a passenger, and when informed of the trouble tendered his assistance. Hudson immediately took command of the deck and Pearson sought out the fire and took charge of the hose.

As soon as the condition was grasped, Hudson ordered everybody forward, and headed for the shore three or four miles away, instructing the engineer to keep up the revolution of the wheels as long as possible.

Before one-half of the passengers could get forward, the fire broke out amidships, thus cutting off all communication between the fore and aft of the vessel.

The sea was calm, but the light breeze off shore fanned the flames and left the passengers aft only one alternative, which many of them took to their destruction.

The Golden Gate had ten boats, but only five could be reached, and most of the life preservers were out of reach. After being nearly roasted, the engineers managed to cut their way out. The vessel was run on the beach three hundred yards from shore.

Captain Hudson and Captain Pearson were the last to leave the ship, and then not until they were driven to the bowsprit and the ropes to which they were clinging burned and they fell into the surf.

It was ascertained that only eighty reached the shore. Sixteen bodies came in the next morning and were buried in the sand.

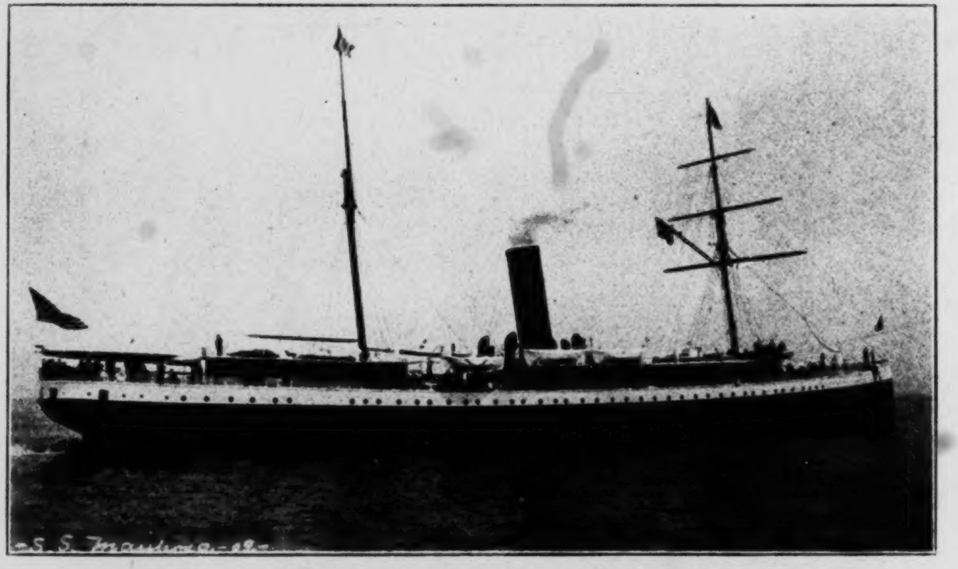
In less than three hours, over 250 had met death and nearly $2,000,000 in property had been destroyed.

The disaster brought out many heroic acts on the part of both passengers and crew.

Charles C. Sullivan, one of the earliest to reach the shore, saved many lives by returning frequently into the surf and dragging helpless ones ashore. He had the credit of pulling out the last man seen in the foaming waters.

There were four men at the wheel when the steamer was headed for the shore. One after another left as the flames approached. At last only William Howd remained. He was seen to leave when the fire had reached him, but it was only for a moment. He then returned and made fast the wheel so as to keep the steamer on its course, and then plunged overboard and was saved.

A mother appealed to Mr. Murphy to save her two-year-old boy. Rev. C. Keith, an Episcopal minister to China, united his handkerchief with another and strapped the boy to Mr. Murphy with the remark, "The Lord save you and the child." Both were saved. Keith had just returned from China with a sick wife, who died in San Francisco ten days before the steamer left. He had preached in the cabin that


-S. S. Mariposa-98-

The Mariposa of the Oceanic Steamship Company.

morning, and was one of the last to leave the ship. Though a good swimmer, he suddenly disappeared upon reaching the surf.

Ben Holladay, a well-known character in those days and for many years afterwards, strapped himself to a ladder before sinking, and was picked up afloat.

There were many other equally noteworthy escapes, fully as remarkable as those mentioned.

It was fortunate that the fire was discovered in the afternoon. In less than three hours afterwards all the woodwork of the vessel above the water line had been destroyed, leaving nothing but the massive machinery in sight.

During that brief interval a steamer worth $250,000, a cargo worth $100,000 and specie valued at $1,400,000 passed beyond the reach of those who had owned or controlled the same.

But of far more consequence than even such loss, was that of human life, over two hundred persons being lost or missing when all the known survivors had reached Manzanillo, the nearest town to the scene of the wreck.

The disasters to the Central America and the Golden Gate, though arising from dissimilar causes, were the most serious recorded in the service between New York and San Francisco via the Isthmus, and robbed many households of lives that were dear to the survivors.

Other Disasters in the Line.

The other most notable disasters in the Pacific Mail Company's service, not previously mentioned, were the Golden City in 1870, the Sacramento in 1872, the City of San Francisco in 1877, the Georgia in 1878, the Japan in 1874, the New York in 1875, the Great Republic in 1879, the Salvador in 1882, the Winchester in 1884, the City of Tokio in 1885, the Colima, City of New York, Honduras and San Blas later on, the City of Rio in 1901, and the Asia in 1911. Last named belonged to Asia Steamship Company.

The Golden City was wrecked off the coast of Lower California in a dense fog on February 22, 1870, while in command of Captain Comstock. She had 334 passengers, all of whom were saved, as was the $791,200 in specie. Vessel and cargo a total loss. The captain was at his post two and a half hours before the accident and for twelve hours afterward. The steamer was on her way to Panama.

The Sacramento went on a reef off Point San Antonio, Lower California, on her way up from Panama with 100 passengers, near midnight on December 5, 1872. There was no loss of life, but there was a total loss of vessel and cargo. Captain Farnsworth was in command, and took the disaster greatly to heart. It was his first and last serious accident in command of a vessel.

The new iron steamer City of San Francisco was sunk near Acapulco after running on a rock, May 2, 1877, while in charge of Captain Waddell, of rebel army fame. This was the second steamer bearing the name of the city, in the service of the company, to go down.

The Georgia, Salvador and Winchester were wrecked off the Central American coast, while engaged in the coffee trade.

The steamer Japan and New York came to their end through flames.

The Great Republic was wrecked while temporarily employed in the coast service.

The loss of the City of Tokio on the Japanese coast was a serious blow to the company.

The Golden Age was burned on the Japanese coast while in service between Yokohama and Shanghai, having been sent to China for that purpose in 1869.

The City of Rio went down in a dense fog while entering the port of San Francisco on a return trip from China, on February 22, 1901. She disappeared in deep water with a large loss of life, including the captain, who went down with his vessel while sounding the alarm. The exact location of the vessel has never been ascertained.

The mystery attending the loss of the City of Rio is one of the most remarkable in marine history.

Many vessels have left port for some destination, more or less distant, and have never been seen or heard from after once passing outside of land. No one has ever been able to tell when or where or how they disappeared from view. Such disasters have ever been held as secrets of the mighty deep. Relatives of those known to have been on board when such vessels have left port have watched and waited in vain for the return of the loved ones, but have never had their hopes realized and never will. Bereavements of that character are among the very hardest burdens to bear.

But when a steamer returns to port from a round trip of thousands of miles and actually crosses the bar inward bound, and then goes down almost in sight of the wharf where all expected to be safely landed within an hour or two, the event is peculiarly sad. The captain's watch was recovered about a month after the disaster, and a little later his body, with a few others. Nearly all that went down with the vessel have never come to the surface so far as known.

The steamer Asia, ex-Doric, was wrecked off the Chinese coast while returning to San Francisco from Hongkong. Passengers and crew were saved, but the steamer was a total loss, and also the cargo.

The Colima was wrecked off Manzanillo on the up trip from Panama.

How Vessels End Existence.

Every vessel sent into the water from every shipyard in every part of the world is bound to reach the end of its usefulness and also its existence in one of three ways.

The vessel is either bound to be engulfed by the water over which she has passed so frequently and gaily on her mission of pleasure or profit, or be wrapped in flames and so pass into the air in smoke, or to be broken up while quietly resting in the still water of a bay or inlet.

Statistics are not at hand showing the average life of either sailing vessels or steamers, or the particular form of their disappearance. Of the vessels that have passed out of existence, it would be interesting to know which route of getting out of the way the majority of them took.

Many years ago the writer undertook an investigation of these matters in a limited way. The port selected was San Francisco. The class of vessels chosen was the ocean steamers engaged in the trade of that port, and the period covered was 1849 to 1886, both years inclusive.

There was still another limitation. Only such steamers were taken into the account as had come into the port with the view of engaging more or less permanently in its trade. Under this rule, all tramp steamers were excluded, as most of these were under foreign flags.

The known list to which the investigation was confined was in this way reduced to 162 steamers in the ocean carrying trade, the majority of which were under the American flag.

The disposition of these 162 steamers was as follows: Wrecked, 46; burned, 15; broken up in San Francisco, 20; converted into sail vessels or hulks, 12; went elsewhere for business, 17; end unknown, 4; total out of existence of steamers hailing from San Francisco, 114; in service at the close of 1886, 48.

Of the 20 vessels broken up in this port in that interval, 14 met that end between 1880 and 1886, both years inclusive. Three of these disappeared in that way in 1880, four in 1884, four in 1885, two in 1886, and one in 1887.

These facts were ascertained at considerable cost of time and labor.

First Steam Line to China.

The Pacific Mail Company has had wide latitude in the Pacific Ocean. It has assumed that it had the right to monopolize these waters from the fact that its steamers were the first of the merchant marine to breast the waves of this part of the world.

Every route radiating from San Francisco has at some time or other been covered by the Pacific Mail Company's steamers. No one has questioned this right so far as the foreign service of the port is concerned.

But the aggressive spirit of the company was not satisfied with this wide-spread diversion of its lines.

In its reach for business it did not even overlook the domestic Pacific coast trade, and at one time had steamers running on the coast both north and south of San Francisco.

The only uncovered routes have been the lines to Alaska and the Society Islands.

The enterprise of the company in thus reaching out for new fields is deserving of commendation, whatever may be thought of the policy.

Some years before the inauguration of a steamer line between San Francisco and Hongkong, the writer called attention to the importance of an undertaking of that character.

These appeals were backed up with an exhibit of the steady development of the trade which had been accomplished under the exclusive use of sailing vessels.

In a prepared article published in 1866 it was shown that San Francisco's trade with China and Hongkong had increased from a value of $240,000 in the exports of merchandise and produce, and $1,309,000 in treasure, in 1856, to $1,376,000 in the former and $6,900,000 in the latter in 1865. Most of this increase was made in the last five years of that decade.

Even at that early period the flour trade with China showed much promise, increasing from 4,200 barrels in 1856 to 51,000 barrels in 1863. There were no such shipments in 1858, and there was some falling off in 1864 and 1865 from the big total in 1863. In the first five years of that decade these shipments were only 43,000 barrels, while in the last half of the same decade they were 150,000 barrels.

In addition to the freight movement direct from San Francisco to China in those early years, many of the vessels sent here with cargoes went back with lumber cargoes from Puget Sound.

The expansion in San Francisco's import trade has been quite as rapid and quite as important as the growth in the export trade. The value of these imports as early as 1865 exceeded $2,000,000.

In 1862, the arrivals at San Francisco from Hongkong were 42, representing 36,800 tons of registered tonnage, while in 1863 they were 44, representing 34,300 tons.

These were all sail vessels, and most of them ship rigged, though small as compared with those built in later years.

For example, only 16 of the 44 vessels from China and Hongkong in 1863 exceeded 1,000 tons register. With four exceptions the tonnage of the largest 16 ranged from 1,000 to 1,200 tons. There were three of 1,400 tons and one of 1,971 tons. The last named was the King Lear.

The trips of the 44 ships that year varied from 36 to 84 days, these honors being credited to the barkentines Podesta and San Francisco. Freight money earned by these vessels from China in 1863 was $314,400.

At least two incentives led to the establishment of steam communication with China in 1867. One of these was the anticipated early opening of the first continental railway between the Atlantic and the Pacific through the united efforts of the Central Pacific and the Union Pacific, an event that was expected to have an important bearing on the development of California.

The other incentive was of a more personal and limited character, but it appealed to those interested probably with greater and better effect than the first and more general one. This was the granting by Congress of a subsidy of $500,000 for a monthly steamer service between San Francisco and Hongkong, as compensation for carrying the mails.

Whether such a line would have been started at that time without the promise of such a subsidy is extremely doubtful. No doubt the enterprise would have come in time, but not quite so early.

The contract for this monthly service was awarded to the Pacific Mail Company, as was to be expected, because it was the only corporation on the spot and equipped to handle the business.

Pioneer Steamer in China Line.

The steamer Colorado, a sidewheeler of 3,728 tons, one of the largest and finest of the Pacific Mail Company's fleet at that time, was selected as the pioneer of this new enterprice, and January 1, 1867, was the day set for the beginning of the voyage.

The event was considered of such importance that it was celebrated by a banquet, accompanied with toasts and speeches, one of the most general and popular ways Americans seem to have of making demonstrations and jollifications.

This was an entirely new venture. The route to be taken and the conditions that might possibly be encountered were thoroughly studied and all plans formed prior to the departure. The command had been assigned to Captain Bradbury, a favorite of the company and quite familiar with the China service.

The steamer left on the day set with a fair freight, including 1,000 barrels of flour and $560,000 in specie for Hongkong, and $21,700 for Japan. That quantity of flour looks small in view of the consignments of 10,000 to 12,000 barrels subsequently carried by steamers in that trade.

There were a goodly number of passengers on board, including A. A. Low, president of the New York Chamber of Commerce, a tea importer of much prominence then and for many years afterwards. Allan McLane, president of the company, and Commodore Watkins, prominent in the company's service, were guests on the trip.

A detour was made to Honolulu. This was probably an afterthought.

The arrival of the steamer at Yokohama and later at Hongkong met with hearty welcome. Her European advices were 12 days later than those received by the English and French steamers.

While at Nagasaki, Commodore Watkins met with a fatal accident by falling through an open hold on board.

On her return, she had more freight offered than could be taken. The Japanese Government sent an embassy by her to the United States.

She arrived at San Francisco on March 20th, having been only 78 days on the round trip, including all detentions. She made the run from Hongkong in 31 days, and from Yokohama in 21 days. This later time has since been lowered to 10 days 10 hours, which record was established by the Siberia in 1905.

The Colorado made two more round trips in the next five months, when she was reinforced by the Great Republic, 3,882 tons, and the China, 3,836 tons, both wooden sidewheelers, each of which made one round trip in 1867.

These five round trips was the best the company could do in that first year, while nine round trips was the record for the second year. In 1869, however, the company got the line in thorough working order, and there were twelve round trips in that year and the year following.

Men accustomed to the Chinese trade were chosen to command the steamers. Captain Doane was given the Great Republic and Captain Smith the China.

In 1868 two more steamers were added. These were the New York, 2,217 tons, and the Japan, 4,352 tons. The former had been employed in the Aspinwall trade, and was sent direct to Hongkong from New York, while the latter had been built expressly for the Chinese trade.

The steamer America, 4,454 tons, built as a companion to the Japan, was added to the fleet in 1869. These were the largest steamers in the China tea trade in 1869.

The steamers Japan and America were wooden sidewheelers, and both were subsequently burned on the Asiatic coast, the America on August 1, 1872, and the Japan off Swatow in December, 1874.

The Great Republic escaped a similar fate, but was wrecked on the Columbia River in 1879, while engaged in the coast trade. The Colorado and China ended their days in peace—or in pieces—both having been dismantled and broken up in this harbor. The Golden Age, sent to China in 1869 for service between Yokohama and Shanghai, was subsequently burned.

In 1871, the sidewheel steamers Alaska and Arizona, 2,793 and 4,012 tons, were added to the fleet direct from New York.

In May, 1872, a semi-monthly service was inaugurated by the Pacific Mail Company, which was maintained thereafter until the close of 1874.

Owing to the loss of the America, the company, in 1873, chartered the British steamers Quang Se and McGregor, 2,788 and 2,167 tons, in order to keep up the semi-monthly service.

Opposition in China Service.

After seven years of peaceful occupation of the China steam service, an attempt was made to divide the patronage. The name of the new enterprise was the China Transpacific Company. The steamers secured for the service were the Vasco de Gama, Vancouver and Lord of the Isles. These steamers made several trips in 1874, and Macondray & Co., a tea firm from the days of 1849, were the local agents.

The first tramp steamer came to hand in the same year from China and was loaded back. This was the Altoona.

There were 30 steamer arrivals at San Francisco from Hongkong in 1874, the largest number reported up to that time.

In 1875 the Pacific Mail Company put on the China route two large iron propellors, under the names of City of Peking and City of Tokio, each 5,080 tons register. These were decidedly the largest in that trade then and for several years afterwards. The City of Tokio was lost off Yokohama in June, 1885.

British Line for the Trade.

A new line, with British steamers, went into operation in conjunction with the Pacific Mail Company in the China trade in 1875. This company was incorporated in this State in November, 1874, with a capital of $10,000,000, under the name of the Occidental and Oriental Steamship Company, with the following directors: Leland Stanford, Charles Crocker, David D. Colton, Lloyd Tevis and Mark Hopkins.

The line was known as the Central Pacific Railroad Company's line, but was soon in entire harmony with the Pacific Mail Company's line. It owned no steamers, but chartered from the White Star line on the Atlantic the steamers Belgic, Gaelic and Oceanic, which were sent out from England direct to Hongkong.

All three were iron propellors and speedy. The first to arrive at San Francisco was the Oceanic, on June 29, 1875, in a trip of 24 days from Hongkong, followed by the Belgic in July, and the Gaelic in September. In addition the company subsequently put on its new iron propellor, San Pablo.

In 1882, the Arabic and Coptic were substituted for the Belgic and Oceanic sent home, and in 1885 the new and larger steamer Belgic was placed in the service for the one of the same name retired.

In 1887, the Pacific Mail Company had in this branch of its service the iron propellers City of Peking, 5,080 tons, City of New York, 3,020 tons, City of Rio de Janeiro, 3,548 tons, and City of Sydney, 3,017 tons. At the same time the Occidental and Oriental Company had the Belgic, 2,695 tons, Gaelic, 2,652 tons, and Oceanic, 3,707 tons—all British iron propellers—and the San Pablo, 2,112 tons, American iron propeller.

From 1867 to 1886, both years inclusive, a period of twenty years, there were 477 steamer arrivals at San Francisco from China and Japan. The registered tonnage represented in these arrivals was 1,550,463 tons.

The largest number of arrivals in any one year in the above interval was 46, representing 132,000 tons. These totals included 17 tramp steamers.

Under normal conditions, the largest amount of tonnage represented in the arrivals from China in those twenty years was 103,000 tons in 1875.

Perils in the Trade.

It is not always smooth sailing in this service, especially in the China seas, where monsoons and typhoons are frequently met, with more or less danger to life and property.

The steamer Golden Age on her first and only trip hence to China, when nearing the Asiatic coast encountered one of those typhoons, but outrode the gale, though she was only a wooden side-wheeler. It will be remembered that it was the same steamer, when looking for a purchaser in England, did considerable damage to a wharf in Liverpool under a full head of steam, while herself escaping serious injury.

On one of her homeward trips, the Colorado was blown off her course and was 49 days in making the run from Hongkong, and was obliged to go into Honolulu for coal. Her long trip was the cause of much anxiety.

On one of her outward trips, when 2,100 miles from Yokohama, the Great Republic broke one of her shafts, but completed that voyage with one shaft and such sail as could be spread. The detention at Yokohama and the sending out of a new shaft involved an expense of $30,000.

The China, on one of her inward trips prior to 1886, met with an accident to machinery about midway between Yokohama and San Francisco. The break was a serious one and there was considerable delay and much anxiety for her safety.

The steamer was hove to in midocean and the damage repaired. The incident was an object lesson of much interest, a credit to the engineers for their skill and to the company for the provision it had made to meet just such emergencies.

Many other similar disasters have since been met and overcome in like manner, and much anxiety has been occasioned by delay from one cause or another.

The installation of the wireless in recent years, while not preventing these minor and sometimes more serious accidents, does eliminate anxiety.

The steamers in the China trade of San Francisco have been extremely fortunate in escaping the perils of the route.

The Occidental and Oriental Steamship Company maintained its line of chartered steamers on the China route from 1875 to 1908, though not always with the same steamers. When the charters of the last three expired, the Gaelic was sent back to England, and the Doric and Coptic were then chartered by the Pacific Mail Company, their names being changed to Asia and Persia.

Essentially a California Organization.

Though incorporated in New York, San Francisco has been the terminal point of the Pacific Mail Company. For over sixty years its steamers have been running in and out of this port, in good years and bad years, with great regularity, and although pressed at times for funds to keep the American flag on the Pacific, as against highly subsidized foreign competitors, has managed to find means to do so.

It has renewed and increased its fleet from time to time as the traffic increased, and its trans-Pacific steamers to-day are considered to be the finest American ships afloat.

The company has always made it a point to make the bulk of its repairs and purchases at San Francisco as against other ports on its routes, and this, in the many years of its existence, has meant the expenditure of enormous sums here, thus helping to build up the commercial establishments and increase the volume of trade at this port.

Change in the Management.

When C. P. Huntington secured control of the Pacific Mail Company in 1893, there was a large floating indebtedness, and as a result the floating equipment of the organization was much deteriorated. His first work was to bring about a better condition of affairs in all directions.

Mr. R. P. Schwerin was elected vice-president and manager, which position he has ever since held.

Within four years the indebtedness of 1893 was liquidated from the earnings of the company and a sufficient surplus created to justify a renewal of dividends, which were continued until 1899.

In the meantime the fleet was overhauled and various vessels placed in the best condition. The steamers Newport, San Jose, and City of Sydney were practically rebuilt. The British steamer Canterbury was purchased and renamed Aztec. The steamers Siberia and Korea were built and equipped at a cost of over $4,000,000. The company at this date is free from debt. Its trans-Pacific fleet is practically new and in the best condition, and the steamers in its Panama express and way lines are also in good condition.

The Big Four Steamers.

In 1899, C. P. Huntington, then president of the Pacific Mail Company, gave orders for the building of two steamers of 18,000 tons displacement and 21 knots speed. These were completed and put in service in 1902 under the name of Korea and Siberia. Each is 572 feet long and has an indicated horsepower of 18,000. Both have shown a speed in excess of 21 knots. In 1905 the Siberia made the voyage from Yokohama to San Francisco in 10 days and 10 hours, a record which has stood to September 1st.

The success of these steamers in attracting travel led to the construction of two other steamers of still larger size, which were completed in 1904, and are known as the Mongolia and Manchuria, their length being nearly 618 feet, with a tonnage displacement of 27,000 tons.

All these four steamers are fitted up with the latest devices for the comfort and safety of passengers, making them equal to the best equipped liners in the trans-Atlantic service.

It is understood that the company is planning for the construction of additional steamers for the trans-Pacific trade of still larger tonnage than the last named two.

Local Agents Pacific Mail.

Alfred Robinson was the first agent in San Francisco of the Pacific Mail Company, acting alone in 1849 and part of 1850, when G. W. P. Bissell became associated with him. In 1851, Gilmor and Meredith took charge, Captain Eben Knight in 1852 and Edward Flint in 1853.

In 1854, A. B. Forbes, who had been in the company's service in Panama, was given the position, and remained in charge until 1864, W. F. Babcock being associated with him in the last few years of that term.

Oliver Eldridge took charge in 1865, and held the position until 1873, being associated with R. B. Irwin in the latter part of that term.

For the next three years the position was held by Captain Baby, S. K. Holman, Edward Higgins and M. B. Cox.

In 1876, the steamer South Carolina was sent to this port to run as an independent in the Panama trade. She was consigned to Williams, Blanchard & Co. The Pacific Mail Company gave the position to Williams, Blanchard & Co., and the South Carolina went to the Pacific Mail. This firm, with Mr. Dimond in place of Mr. Blanchard, held the agency for many years.

Alexander Center was general agent of the company for several years, and was previously in its employ in the Orient. His entire connection with the company was for a longer period than any other official.

Japanese Steam Line.

The Toyo Kisen Kaisha, a Japanese steamship company of large capital and a good sized fleet, inaugurated a monthly line between Hongkong and San Francisco via the usual Asiatic ports in 1899. The first three steel propellers for this service were built in England, and bore the names of America-Maru, Hongkong-Maru and Nippon-Maru, and registered a little less than 3,500 tons. The last named was the first despatched, reaching San Francisco in January, 1899. The service was interrupted during the war between Japan and Russia, but was renewed upon the settlement of that trouble.

In 1910, the company completed at the shipyard in Nagasaki two steel propellers of 7,260 tons each, and placed them on the same route under the names of Chiyo-Maru and Tenyo-Maru. The America-Maru was sold in 1911 to a rival company in Japan to go into the coast trade.

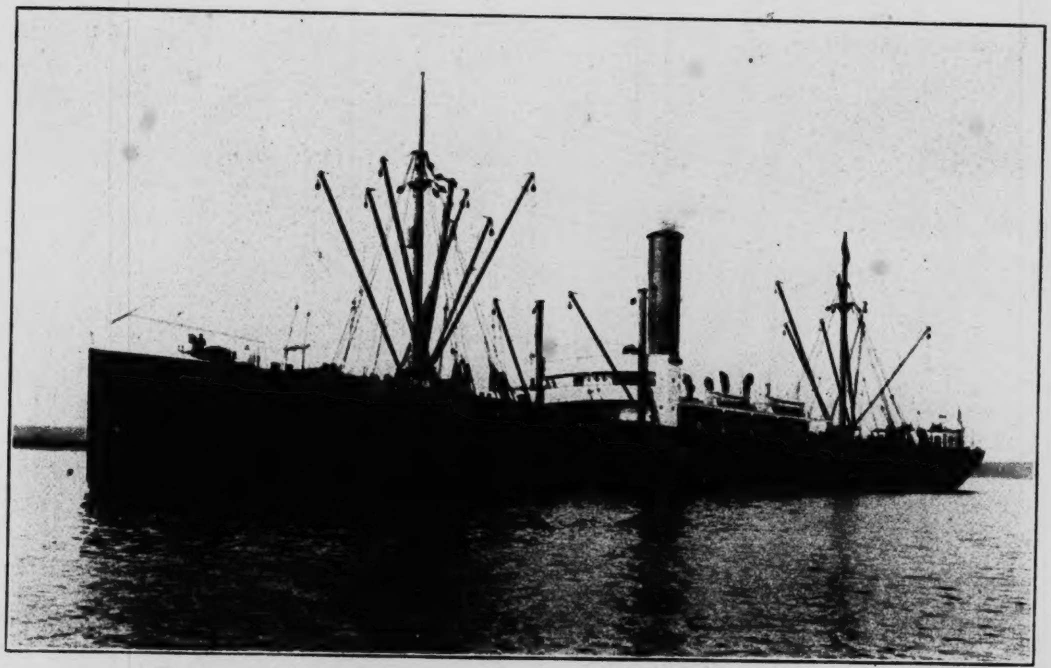
The same company in 1911 completed at the same yard a still larger steam propeller for the same trade under the name of Shinyo-Maru, which sailed on her maiden voyage to San Francisco on August 26th. It is claimed for this steamer that she combines in her construction all the latest improvements, and that her giant turbine engines will give her a speed of 21 knots.

Steam Service with British Columbia.

While there was an occasional steamer between British Columbia and San Francisco in the early fifties, it was not until 1858 that the service assumed any prominence. One of those earlier steamers in the trade was the British steamer Otter, which made one or more trips in 1854.

Gold discoveries had been reported in the Fraser River region in British Columbia early in 1858. Many who had been disappointed in mining operations in California were naturally attracted by these reports of rich discoveries elsewhere.

These hunters for the yellow metal were an impatient crowd. They would not have come to California if they had not been. Once here and not finding just what they wanted, they were willing at a moment's notice to pack up and go elsewhere.



The Isthmian of the American-Hawaiian Company.

Evidence of this was shown in the rush for gold in the black sands on the beach in Humboldt county, known as the Gold Bluff mining excitement of 1851. This was too near San Francisco to last long, and the movement was checked before it had fairly begun by the return of those first on the field.

In 1854, there were reports of gold deposits at the headwater of the Amazon in Eastern Peru, and a considerable number left San Francisco for Callao, only to learn upon arrival at that port that there was nothing in the stories.

In 1855, the Kern river excitement in the southern part of California had the same effect on the floaters about San Francisco, who rushed off in that direction only to be disappointed.

Despite these three false alarms in seven years, the news of the rich diggings in the Fraser river region stirred the community anew and very thoroughly. Some falling off in the gold yield in California and dull business conditions accentuated the restlessness of the people and prepared them to seize any excuse for a change.

The rush to Fraser river began in April, 1858, and continued with more or less vigor until the following September. During this interval, one authority says, 15,088 people left on 112 vessels for British Columbia, while another authority (Price Current) gave the number at 23,428. This total was generally accepted as the one nearest to the exact number that took their departure during those few months.

Some idea of the magnitude of this movement may be obtained by the statement that it was equal to one-sixth of the reported population of the State at the time and fifteen times as many as were attracted to California from all the Atlantic States in 1849.

The effect on property values in San Francisco was quite disastrous. Every person who sold out for Fraser river made it more difficult for the next man to sell his property.

Those who remained, however, and who did not lose their confidence in the future of the city, and who had money to invest in the sacrified real estate, did well.

In some cases at least, subsequent large fortunes were dated back to those lucky investments in San Francisco realty.

But this course required courage of a high order; for after the State had been depopulated to the extent named, at least one-third of the remainder was getting ready to follow, when the people began to come back nearly as fast as they had gone forth, disappointed and disgusted with their luck in the new El Dorado of the North.

It was estimated that this little mining adventure cost those who participated in it at least $9,000.000. An outfit and freight cost $100, the fare was $60, and there was an average of 60 days time lost for each one in the expedition.

The Frazer river mining excitement was one of the greatest fizzles of the kind on this coast. Thousands were disappointed in not being able to go, but the thousands who returned were the greatest losers.

It was charged that steamship owners got the thing up to give employment to some idle steamers. One thing is certain—it was the means of opening steam navigation between California and British Columbia, which has ever since been maintained, and with profit and convenience to all parties.

The steamer Commodore, which arrived at San Francisco on May 5, 1858, practically inaugurated this new line. This steamer was owned by J. T. Wright, who also in the following July put on the Pacific.

The Pacific Mail Company supplemented that service by immediately placing on the same route the steamers Panama, Cortez, Oregon and Columbia.

There were only two arrivals from Victoria in May and four in June. In July there were eleven, including the Santa Cruz, consigned to Fauntleroy, and the Sierra Nevada, consigned to C. K. Garrison.

In the last five months of 1858, there arrivals averaged six per month, including the steamers Active, Surprise and Wilson G. Hunt. The Surprise was put on by the California Steam Navigation Company.

There were 49 steamer arrivals at San Francisco from British Columbia in 1858 and 56 in 1859. In the latter year, the additional steamers on the route were the Brother Jonathan and Northerner under the American flag and the Forward and Labouchere under the British flag.

In 1860, business on the Victoria route resumed normal conditions, with the Pacific and Panama as leading steamers, the former making 13 and the latter 8 trips, while 12 round trips were made by five other steamers.

In 1861, six steamers were run off and on, four in 1862 and six in the following two years. The Hermann and Tynemouth were the new steamers temporarily added in 1862. The British steamer Robert Lowe from China made one trip in 1863.

There were 75 arrivals of all kinds from British Columbia in 1862, representing 60,700 tons of tonnage, and 51 in 1863, representing 48,700 tons. In the latter year 13 of these arrivals were under sail.

The principal steamers employed on the route in 1863 were the Brother Jonathan, Pacific and Sierra Nevada. The Oregon and Robert Lowe each made one trip.

In 1864, the John L. Stephens was placed in the service. She registered 2,000 tons and was the largest in the trade up to that time.

J. T. Wright and the Pacific Mail Company abandoned the route in the early sixties, leaving the California Steam Navigation Company in practical control.

In April, 1867, the California Steam Navigation Company withdrew from the route in favor of the California, Oregon and Mexican Steamship Company for a consideration of $700,000, and the latter company substantially controlled the route for the next four years.

From 1865 to 1870, the steamers on the route were the Active, California, Del Norte, Constantine, Fideliter, Idaho, Labouchere, John L. Stephens, Moses Taylor, Oregon, Sierra Nevada, Pacific, Gussie Telfair and Pelican.

The Gussie Telfair was an iron steamer and arrived here from New York in May, 1867, and the Pelican was a steel steamer (first of the kind in these waters), which arrived here in October, 1868. Both had been employed as blockade runners in the Civil War.

The Active was on the route from 1858 to 1870, when she was wrecked. Previously to 1858, she was a Government survey steamer.

The Pelican and Idaho were placed on the route in 1870.

John Rosenfeld took a prominent part in the service from 1871 to 1874, both years inclusive, and again in subsequent years.

Goodall, Nelson & Perkins in 1875 took up the service prominently for a short time.

In August of the same year, the Pacific Mail Company again entered the service. The first vessel it put on was the chartered steamer Vasco de Gama, which had been employed in the China trade. It followed this act with the steamers City of Panama, Salvador, Dakota, Constitution, Alaska and other steamers, and kept up the service until 1880, when it abandoned the route for the second time.

First Steam Collier.

In 1880, Goodall, Nelson & Perkins resumed service on the Victoria route and maintained it for many years.

The first steam collier on the Pacific Coast was introduced by John Rosenfeld, a prominent operator in coal, in 1871. Up to that time it had not been thought possible to employ steamers in the coal trade.

The change in coal carrying on this coast from sail to steam was brought about in this way. The British steamer Prince Alfred arrived here from Central America quite unexpectedly in June, 1870, the owners evidently seeking a purchaser. Mr. Rosenfeld bought her and spent considerable money in repairs and alterations, and then placed her in the British Columbia trade just one year after her arrival.

In 1874, just three years later, she was wrecked while trying to enter this port in a dense fog with a cargo of coal.

Mr. Rosenfeld had demonstrated the feasibility of such service, and in 1873, the steamers Empire and Eastport were built on Puget Sound for the coast trade, and were employed in that trade for many years.

Mr. Rosenfeld was not discouraged by his first three years' experience in freighting coal under steam, nor by the loss of his steamer while engaged in that year.

In February, 1877, the Chilean steamer Bolivar came into this port from South America. The owners were seeking outward business by charter or a purchaser.

After a long stay in port, she became the property of Mr. Rosenfeld, who rebuilt her to a large extent, and gave her the name of Victoria. She was put in the British Columbia coal trade in March, 1879, and remained in that trade until wrecked in 1883.

The next effort to introduce steam in the coal carrying trade of British Columbia was made by R. Dunsmuir & Sons in 1881. This firm chartered in England the steamers Barnard Castle and Hylton Castle, and they were put into the service immediately upon arrival.

The Hylton Castle was sent back to England by way of

Callao in 1885, and the Barnard Castle was wrecked off Puget Sound in November, 1886.

In 1883, the same firm brought out the Wellington from England, and she remained in the coal trade for many years.

The success of these experiments in the British Columbia coal trade led the Puget Sound miners to adopt similar means in the transportation of their product to San Francisco.

In 1881, the Oregon Improvement Company brought out from the Atlantic side the steamers Umatilla, Walla Walla and Willamette, following these two years later by the Mississippi—all iron propellers. The last named was the smallest of the four, and was destroyed by fire at the wharf in Seattle the same year of her arrival.

The steamer Umatilla was once abandoned at the north in a sinking condition, as all aboard thought. One of the mates declined to leave the vessel, and he alone worked it into port, only to sink upon arrival. She was raised, repaired, and has been doing good service ever since. An instance of that kind of rescue has probably had few duplicates anywhere in the whole history of marine affairs.

In 1881, the Central or Southern Pacific Railroad Company ordered the construction of two iron propellers at the East for the transportation of coal from the Carbon Hill mine on Puget Sound to San Francisco.

These were named Tacoma and San Pedro, the first arriving here on December 30, 1882, and the other on March 7, 1883. These steamers were built with special reference to speed and carrying capacity.

The Tacoma was lost off Capt Flattery on her first trip down with a cargo of coal in January, 1883. On her way out, the Tacoma made the trip from Hampton Roads to San Francisco with a full cargo of iron and coal in 47 days and 12 hours, never calling at a port on the way.

A wire order was sent to the builders to build a duplicate of the Tacoma under the name of San Pablo, but when the new vessel was ready for service she was ordered to China to engage in the tea trade under the auspices of the Occidental and Oriental Steamship Company.

The use of steam colliers in the transportation of coal from the northern mines to California, inaugurated by John Rosenfeld in 1871, has never once been abandoned.

On the contrary, from a single steamer in that trade for the first three years, the number has been increased as the years have gone by.

The managers of the British Columbia mines have preferred to charter rather than to build steamers for their own use.

These vessels have been generally engaged under time charters, running from one to three or more years. Not only has the number been increased, but also the carrying capacity. In 1883, when the San Pedro came in from Puget Sound with 4,000 tons coal, it was noted that it was the largest cargo of the kind ever landed here.

Of late years, the steamers in the coal trade of British Columbia have brought down much larger cargoes, say from 6,000 to 8,000 tons.

From 1858 to 1886, both years inclusive, there were 1,432 arrivals at San Francisco from British Columbia of all sorts of vessels, representing 1,718,900 tons of registered tonnage.

Disasters on British Columbia Route.

There have been quite a number of losses on the route between California and British Columbia. At least three of these were attended with a great sacrifice of life.

The greatest three disasters of the early years in mind were the Northerner in 1860, Brother Jonathan in 1865 and Pacific in 1875. The loss of life was the greatest on the last named.

The Northerner came here in 1850, and was at first in the Isthmus trade. At the time of her mishap she was in the coast trade, and was wrecked off the northern coast of California. She had 40 passengers on board at the time, including several women.

Chief Officer French saved every woman but one, and lost his life on his way back to the steamer for that unsaved one. A monument in Laurel Hill cemetery in San Francisco attests his last heroic act.

The steamer Pacific was lost on her way down from Victoria with 250 passengers in collision with the ship Orpheus, off Cape Flattery, at 10 p. m., November 4, 1875. She broke amidships an hour later, and all were lost except three. These were H. F. Jelley, A. Fraser and Quartermaster O. Hanley. Captain J. D. Howell, in command at the time, was a brother of Mrs. Jefferson Davis.

Loss of the Brother Jonathan.

The steamer Brother Jonathan was wrecked on July 30, 1865, while en route from San Francisco to Portland and Victoria with a passenger list of 109 and a crew of 54, under command of Captain DeWolf, who had been to sea for fifteen years, and who was considered a safe and reliable officer.

Among the passengers were Brigadier General Wright and wife and several other army officers, and James Nisbet, editor of the Bulletin. The last named was making a trip to Victoria for rest and recreation after a long season of hard work.

Before getting clear of the California coast, the steamer encountered a terrific sea, and the captain ordered her into port at Crescent City for safety. She had been turned back in compliance with this order, and was supposed to be making for Crescent City, but when ten miles off, while the sea was running mountains high, to use a familiar expression, she struck a rock with such force as to knock the passengers down on the deck. Jacob Gates was in charge of the wheel at the time, and was carrying out the orders of the captain when the collision occurred. It was realized almost at once that the vessel had at last met her doom, whatever might be the fate of those on board.

The boats were launched immediately, but as usual most of them were swamped, owing to the turbulent condition of the sea. Only one boat was successfully cleared away and reached the shore with sixteen persons. Two or three officers were picked up, but the remainder were drowned.

The disaster happened at 2 p. m. and in less than an hour it was all over with the ship and those who were left aboard or struggled in the water about the scene. It was an awful experience, and perhaps it was well that it was of short duration, dear as most people value life.

There were some cool men on that sinking deck, looking into the yawning waters, so soon to be their winding sheet and grave, and among these was Mr. Nisbet, beside whose desk in the Bulletin office the writer had been tutored in some of the ways of daily journalism.

Mr. Nisbet was a fine type of the English gentleman, a little gruff at times, perhaps, but highly cultured and with a heart as gentle as a woman's. The writer considers that he was fortunate in having such an instructor at the beginning of his journalistic career.

Immediately following the collision, Mr. Nisbet took in his situation and prepared for the worst. From the deck of the sinking steamer he wrote out his will as fully and carefully as if he had been at home in peace and quietness. It reads as follows:

At Sea on Board Brother Jonathan,
July 30, 1865.

In view of death, I hereby appoint my brother, Thomas Nisbet, at present engaged on the Pacific Railroad, near Clipper Gap, my sole executor, with instructions to wind up my whole estate, real and personal, and convert the same into cash with all convenient speed, but so as not to sacrifice the same, equally between himself and his sole sister, Margaret Nisbet, now residing in England; and under burden of the payment of a legacy of five thousand dollars in gold to Almira Hopkins, wife of Caspar T. Hopkins, insurance agent, San Francisco, Cal. And I desire that my brother, said Thomas Nisbet, shall not be asked to give security for his intromission with my estate.

JAMES NISBET.

The above was written with pencil on note paper, filling the first and part of another page. Though soaked, there was no word or punctuation mark obliterated. It was recovered with his body.

Mr. Nisbet had for some time been an inmate of Mr. Hopkins' family, though not in any way related to any member. He was very fond of children, and they delighted to call him grandpa. He did not forget this family in the one supreme hour of his life. After completing the directions about the disposition of his effects, he wrote the following to Mrs. Hopkins:

My Dear, Dear Ma: A thousand affectionate adieus. You spoke of my sailing on Friday—hangman's day—and the unlucky Jonathan. Well, here I am, with death before. My love to you all—to Caspar, to Dita, to Belle, Mellie and little Myra—kiss her for me. Never forget

GRANDPA.

The steamer Brother Jonathan had been on the coast for thirteen years, having been brought out from the East in 1852 by C. K. Garrison to run on the San Juan route to San Francisco in connection with the Cortez and S. S. Lewis. The line under Mr. Garrison was the most formidable that the Pacific Mail ever encountered in the Isthmus trade.

At the time of the fatal disaster, the Brother Jonathan was the property of the California Steam Navigation Company.

Loss of the Valencia.

The steamer Valencia was brought out here from the East to go into the Pacific Coast trade. She readily found employment on the northern coast, and made many trips between San Francisco and Puget Sound ports, calling at Victoria. She was also in the Alaska trade off and on during the busy part of the year.

The Valencia was wrecked on one of her trips to the north from San Francisco in 1906. It is known that she sailed from this port on January 20th of that year for Victoria via Seattle. It was on that or some later trip in the same year, of which the writer has no record, that she encountered a terrific storm just before entering the Sound.

It was evident from the start that the struggle would only end in the destruction of the steamer and perhaps the loss of all on board, of which there were a large number, in addition to the crew. This impression spread and deepened with every passing moment. The serious condition suddenly developed several heroes and heroines. One of the latter was Miss Van Wyck. Though as thoroughly helpless as all the others, she did what she could to bring calm and comfort to the distressed by her sweet singing of "Nearer, My God, to Thee, Nearer to Thee," and amid the strains of song went down with the others to her death in the mighty deep.

Direct Steam Line to Mexico.

California had steamer service with Mexico as early as 1849 through the operation of the Panama steamers that called at one or more ports in Mexico both in going and coming.

Outside of such service, there were occasional steamers from Mexico in the early fifties. The little steamers Santa Cruz and Surprise were on the route in 1859 and 1860.

The first regular independent line was not started until

May 1, 1861, when Holladay & Flint sent down the Panama in charge of Captain R. H. Horner.

The Republic was sent down soon afterwards under command of Captain John Bermingham, to run on the Mexican coast. That part of the service was not a success, and was soon abandoned.

Both Holladay and Flint were on the Golden Gate when she was wrecked in 1862. The latter lost his life in that disaster. Holladay strapped himself to a ladder in the water and was rescued. That was Ben Holladay, who died in Portland in 1887.

Jesse Holladay, a brother of Ben, associated himself with Mr. Brenham and took up the enterprise, and the line thereafter was known as the California, Oregon and Mexican Steamship Company.

The Panama was continued in the service under the new organization in 1862 and 1863. The Oregon was then put on the route, followed in 1864 by the John L. Stephens, with the Oregon and Sierra Nevada as relief boats.

In April, 1866, the propeller Continental came out from New York with the Mercer Colony of women for Washington Territory. When chartered for this trip, the Continental was expected to carry 600 women, but brought out only 100.

Upon the completion of this service she was placed on the Mexican route as a regular trader for passengers and freight by the same company, and continued in that trade until 1870, when she went into the northern coast trade and was wrecked off Eel river in December, 1877, after an almost uninterrupted service on this coast for eleven years, during which she earned much money.

The propeller Montana took her place on the Mexican route, and remained in the service until she was burned at one of the Mexican ports in December, 1876.

The Colorado Steam Navigation Company introduced an opposition line on the Mexican route in 1871 by placing the steamer Newbern in that trade. The Newbern was previously in the service of the quartermaster's department of the Government, and made her first trip under the new owner in June, 1871.

The California, Oregon and Mexican Steamship Company retired its service on the Mexican route in 1872.

In September, 1872, the Pacific Mail Company purchased all of the Holladay steamers running on the Southern California coast and Mexico. The list included the California, Orizaba, Pacific, Senator and Montana, and the consideration for the property and good will was $500,000.

The Pacific Mail Company covered the route between California and Mexico for about one year with its pioneer steamer California.

The Colorado River Navigation Company then took additional interest in the Mexican trade until 1877, when it sold out to the Southern Pacific Railroad Company.

The Newbern was continued in the trade from April, 1877, under the auspices of the California and Mexican Steamship Company, of which John Bermingham was the representative.

In February, 1882, the steamer Mexico was launched at the yard of Dickey Brothers in this city for account of the California and Mexican Steamship Company, under the personal supervision of Mr. Bermingham.

Up to that time this was the largest steamer built on this coast, being 280 feet long on the water line, 36 feet beam, about 21 feet depth of hold, and about 2,000 tons register. She cost $250,000.

She left on her first trip to Mexico under command of Captain Huntington on March 8, 1882, and was continued in that trade for some time, or until after the Newbern was rebuilt and restored to the service. Later the Mexico was put on the Victoria route under charter to the North Pacific Coast Steamship Company.

Other steamers have made occasional trips between Mexico and California in the last quarter of a century.

Of late years the little steamer Curacao has covered the route quite regularly and quite satisfactorily.

From 1859 to 1886, both years inclusive, there were 294 direct arrivals of sail and steam vessels at San Francisco from Mexican ports. Most of these were small carriers, and nearly all the sail vessels were in ballast. These arrivals show an aggregate of 312,600 tons of registered tonnage.

Before the completion of the Southern Pacific railroad, considerable treasure was sent from Mexico by the water route to San Francisco. Of late years that trade has not been so large, and most of it has been transferred to the railroad.

The Mexican trade has always been very one-sided. While good cargoes have been sent down, the vessels have come back light, or with little freight.

The disasters in the direct trade on the route have been few, and the losses small.

For many years there was a large specie trade between Mexico and the Orient, and prior to the completion of the Southern Pacific railroad through Arizona all this specie came by the water route to San Francisco and was reshipped here to the Orient. This trade was of considerable importance to the steamers, and the local transactions in Mexican dollars was a source of some income to the brokers.

In those years and for a long time afterwards China was a good customer for Mexican dollars. In 1878, the United States undertook to wrest some of this trade from Mexico by coining a trade dollar of 420 grains, 900 fine. This dollar contained a little more silver than the Mexican dollar, and was in every way its superior, particularly in finish and in uniformity of weight. It is probable that the American trade dollar would have won out with the Chinese in time, difficult as was that task, if the attempt had not been made to introduce them into domestic circulation, for which they were never intended and for which the owners had no legal right. As soon as this infraction of law came to the knowledge of the American mint authorities the coinage of such dollars was suspended and the $35,000,000 emitted were recalled from China and other sources.

Steam Line to Hawaiian Islands.

When Captain Cook discovered the Sandwich Islands in 1778, the native population was about 200,000, and the trade of that number of people was worthy of consideration. In 1910, the native population was 31,000, while the total population of the islands was 192,000, mostly made up of other nationalities than Hawaiians.

Trading under sail with the Pacific Coast by the people of the Sandwich Islands was in progress in the early part of the eighteenth century, and the first arrivals of gold seekers at San Francisco in 1849 obtained some of their food supplies from that section.

As early as 1854, an attempt was made to establish a steam line between Honolulu and San Francisco. So far as can be learned, that effort came about in this way. The British steamer Polynesian had recently arrived at Honolulu from South America seeking business. The only thing that offered was service between Honolulu and San Francisco, and this was accepted by the owners. Some freight was secured and the steamer was started on what was expected to be a permanent line. A single trip sufficed, and the steamer went back to Chile.

Other equally futile attempts of a similar character in the early fifties and also in the early sixties might be mentioned. It was not until 1868 that anything like regular steamer communication with the Hawaiian Islands was established, though during the previous two years there had been occasional trips by steamers.

The first of these was by the propeller Ajax, despatched by the California Steam Navigation Company. This steamer left here January 13, 1866, returning February 22d, and on her second trip on April 11th.

That was experiment enough in that direction for the California Steam Navigation Company, and in the following year, April, 1867, the company sold all its ocean steamers to the California, Oregon and Mexican Steamship Company for about $700,000.

The next step in the establishment of a steam line between San Francisco and Honolulu was made by the California, Oregon and Mexican Steamship Company. This was the third serious attempt along this line.

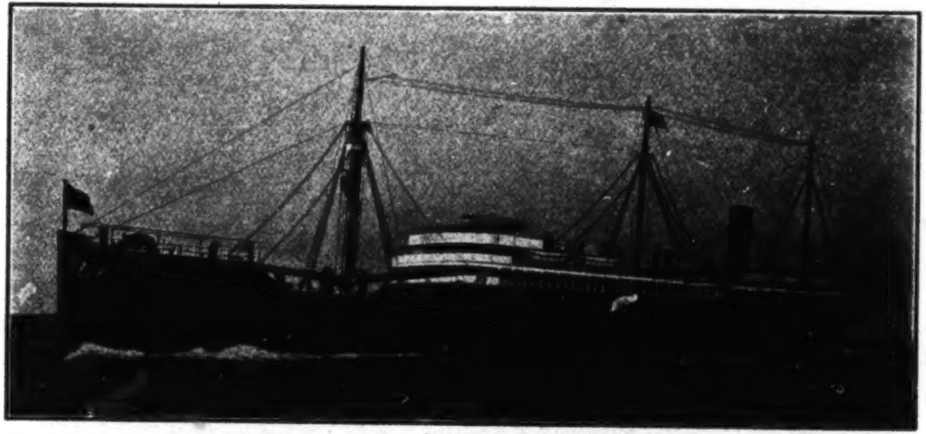
The vessel selected for this experiment was the propeller Idaho. This steamer had been on the coast only a few months, having arrived here from Bath, Me., on February 8, 1867.

The Idaho left here on her first trip to the Islands on September 5, 1867. She made three trips in the last four months of that year, and monthly trips thereafter until May, 1870, being relieved from time to time by the Montana.

In May, 1870, a new enterprise was projected which was expected to continue the monthly service of the previous three years.

This movement originated in Australia under the auspices of Mr. Hall, who had promised to run steamers from Sydney to San Francisco via New Zealand and the Hawaiian Islands, and who had secured a subsidy of 12,000 pounds per annum from the New Zealand Government for that purpose.

The British steamer Wonga Wonga was put on at Sydney as the pioneer steamer of the new through line between the Colonies and California.



The Wilhelmina of the Matson Navigation Company.

But the Wonga Wonga did not make good on that trip, for she got no further than Honolulu.

At that time the reciprocity treaty between the Hawaiian Islands and the United States was hanging fire in the United States Senate, and the Hawaiian planters were trying to hurry a decision by threatening to send their sugar elsewhere than to this country.

It was thought that an example of that kind would have a good effect in emphasizing their threats, and so they interviewed the parties managing the Wonga Wonga with an offer of $10 per ton, to take a cargo of pulp and sugar to Australia instead of proceeding to San Francisco. The offer was accepted.

The steamer Idaho was then at Honolulu, and though her freight and cabin accommodations were apparently all engaged, it was agreed that she should take the passengers and freight brought to Honolulu by the Wonga Wonga through to San Francisco. This she did, arriving here on May 5, 1870.

The Ajax, which was 300 tons larger than the Idaho, was substituted for her, and left here on May 1st. She made four round trips to Honolulu in the following four months.

On her first trip down, the Ajax connected at Honolulu with the steamer City of Melbourne, second in the new line between Sydney and Honolulu. On the up trip the Ajax brought 235 passengers, about two-thirds of them being from the colonies.

In September, 1870, the Moses Taylor was substituted for the Ajax, making three round trips to the islands in the last three months of 1870 and three more in the first quarter of 1871. The Ajax then resumed the service for two months, or until May, 1871, when the arrangement with the Hall steamers ceased and the Australia steamers were withdrawn.

This division of the carrying trade between San Francisco and Sydney via Honolulu was then abandoned.

A new line was then formed by Mr. Webb, who had a number of idle steamers in port, and who had become associated with Holladay & Brenham, the managers of the California, Oregon and Mexican Steamship Company. About the same time parties in Australia started a new line which also included service from Honolulu to San Francisco.

The pioneer steamer selected for the British line was the City of Melbourne, and J. C. Merrill & Co. were appointed agents of the line, while I. W. Raymond was selected as agent of the Webb steamers, which consisted of the Moses Taylor, Nevada, Nebraska and Dakota.

The Nevada sailed hence for Sydney on her initial trip on April 8, 1871. On her return she was to transfer at Honolulu her passengers and freight to the Moses Taylor to complete the trip to San Francisco.

On the other hand, the British line was a through line from Sydney to San Francisco via Auckland and Honolulu.

Webb kept up his line with more or less regularity throughout 1871 and 1872, but in the spring of 1873 he called in his steamers and laid them up.

What became of this British line is a part of another story told elsewhere.

As soon as the Honolulu route was abandoned in 1873, the Pacific Mail Company took up the service, and put on the Costa Rica. In coming into this port on her fifth round trip she ran on the rocks and was wrecked.

This settled the business of an independent line to Honolulu for the next four years.

In 1878, the Pacific Mail Company again took up the service by chartering the steamers St. Paul and Wilmington, each of which made three round trips during the greater part of the sugar season, giving the Hawaiians monthly service for six months of that year.

The route was then uncovered as an independent one for the next three years or more, though the Australian steamer continued to call monthly at Honolulu both in going and coming between San Francisco and Sydney.

The final effort to establish a direct and independent line between San Francisco and Honolulu was made by the Oceanic Steamship Company. The Spreckels were the leading factors in that effort.

The British steamer Suez, 2,125 tons, was chartered for this purpose, and made six round trips in 1882, leaving here on her first trip June 5th. She made the same number of trips in the first half of 1883. After discharging her cargo at Honolulu on the last trip, she proceeded to Hongkong, whence she came in 1882.

During the operation of this one year charter, the Oceanic Steamship Company was having built at Philadelphia two iron propellers for the same trade.

These were named Alameda and Mariposa, each 1,939 tons register. The last named arrived here July 15, 1883, in a trip of 57 days from Philadelphia and entered the service to Honolulu on July 25th.

The Alameda arrived on September 22d of the same year, under command of Captain Steele in a trip of 46 days from Philadelphia, the shortest made on that route up to that time. She sailed for Honolulu October 15th.

On her first trip back from Honolulu, under Captain Howard, who brought her out from the East, she made the run up in 6½ days, while the Alameda made her first run up in 6 days, and was turned over to Captain Morse.

These two vessels were the speediest and most comfortable ever put on that route, and gave to Honolulu a satisfactory semi-monthly service for the next two years, exclusive of the auxiliary service of another line from Australia and that furnished by the China steamer of the Pacific Mail.

In the latter part of 1885, the Oceanic Company extended the service to Australia and transferred the Alameda and Mariposa to that branch, but kept up an independent monthly service with Honolulu by placing the steamer Australia on that route.

This arrangement was continued in force for many years, all the steamers of the company in the Australian line calling at Honolulu, thus practically supplying the Hawaiians with an independent semi-monthly service with San Francisco.

The Oceanic Steamship Company has never once lost its grip on the route between San Francisco and Honolulu. Even after it gave up the Australian service, it kept the Alameda on the route between Honolulu and San Francisco, and when two years ago it parted with the Alameda, it put on the Sierra, and she has since been performing equally good service.

Between 1866 and 1886, both years inclusive, there were 160 independent steamer trips between Honolulu and San Francisco, representing 244,300 tons of tonnage.

The use of steamers on the Honolulu route, as will be observed by this review of such service, despite the several lapses noted, has been an interesting as well as an important feature of the tonnage movement of the port of San Francisco.

Prior to the use of this motive power in 1868, sailing vessels monopolized the trade, and at one time a large fleet of these sailing vessels was required to handle the business, and while this fleet embraced some fast sailers, the steamers have driven nearly all of them from the route.

The service even under steam is fairly profitable, because of the ability of these carriers to get good cargoes both ways during the greater part of the year.

Sugar, of course, is the principal item in the outward cargoes from the islands, but the sugar crop has been increasing from year to year, and probably has not yet reached its maximum, while other products for cargoes are also being developed on a larger scale.

The revenue from passenger traffic has added materially to the income obtained from the service.

Steam Line to Australia.

Steam communication with Australia is a still later development than that mentioned in connection with the Hawaiian Islands, and necessarily interwoven to some extent with that part of the narrative.

Residents of the Colonies have apparently taken more interest than Americans in the establishment of steamer lines between the Colonies and California.

This is perhaps natural because of the greater interest they have had in the movement on account of the better service obtainable by way of San Francisco to London than by any other route.

Not only does it furnish a quicker service in the transmission of mail between the Colonies and England, but it affords the traveling public with a more interesting and agreeable trip.

At first the Colonists tried to establish a steamer route with Panama, thence across the Isthmus by rail to Aspinwall, thence by water to London. For some reason that proposition did not meet with favor, and the experiment was abandoned.

The first actual experiment of a steamer line between Australia and California originated in the Colonies. New Zealand was the most active in that movement, and voted the proposed line a subsidy of 12,000 pounds per annum for carrying the mails.

Mr. Hall was the prime mover in that enterprise, and secured the steamers Wonga Wonga and City of Melbourne for one year in the service, which was opened in May, 1870.

These steamers never got any further than Honolulu, where their passengers and freight were transferred to American steamers to complete the service to San Francisco. This arrangement lasted just one year.

The next steamer enterprise on the route, instead of the union of British and American in a single line, two through lines were formed, one under American and the other under British auspices.

W. H. Webb, a prominent shipbuilder and shipowner, was the promoter of the American line, and he placed in the service the steamers Dakota, Moses Taylor, Nevada and Nebraska.

The Moses Taylor was to run between Honolulu and San Francisco as that part of the service, and the other three were to cover the route between Honolulu and Sydney. The service was to be monthly.

Mr. Webb opened the line by sending the Nevada from San Francisco on April 8, 1871, nnder command of Captain J. H. Blethen. The Nebraska followed on May 6th, under command of Captain Harding. The Dakota did not arrive from New York until November, 1872, when she was immediately placed in the line.

This American line was maintained until the spring of 1873, having been in operation for the space of two years.

While this American line was being formed and put in operation at this end of the route, a British line was being formed at the other end, via Auckland and Honolulu.

The first steamer in this line was the City of Melbourne, which arrived here in June, 1871, with 55 passengers and a small lot of sugar from Honolulu. She was consigned to J. C. Merrill & Co.

This steamer was followed by the Wonga Wonga in the following month and the City of Adelaide in August. These registered 838, 1,002 and 1,212 tons, respectively. The new line was called the California, New Zealand and Australian Mail Line, in which Mr. Hall appeared to have been interested.

The company expected a subsidy of 10,000 pounds from Queensland, 25,000 pounds from New South Wales and 10,000 pounds from Victoria, under a promise of a branch line between Auckland and the Fiji Islands.

This enterprise was not even a nine months wonder. The first named two steamers made two trips each and the last named one trip. That was the end of the enterprise.

In 1874, another attempt was made to cover the route with a British line. This was more successful than any of its predecessors, domestic or foreign.

The first steamer in this new line was the Macgregor, 2,167 tons, which arrived at San Francisco on her initial trip from Sydney on January 25, 1874, in a passage of 35 days, including a detention of 25 hours at Honolulu. She brought 75 through passengers and the English mails.

This service was also to be monthly. In February the City of Melbourne, 838 tons, came to hand, followed in March by the arrival of the Mikado, 3,034 tons, and in April by the Tartar, 2,254 tons.

These steamers alternated with each other, with an occasional relief boat through 1874 and 1875, making thirteen round trips in each year, equal to a four-weekly service. The agents of this line were J. C. Merrill & Co.

In November, 1875, the Pacific Mail Company again took up the service of a line between California and the Colonies under a small subsidy.

The pioneer in this new American line was the British steamer Vasco de Gama, 2,912 tons, previously in the employ of the company under a charter in the China tea service.

The company also secured, pending some steamers being built for the company at the East, the British steamers Mikado, Australian and Zealandia.

Of course this new enterprise run the British line off, the last steamer inward on account of that line being the City of Melbourne in January, 1876.

On December 10, 1875, the Pacific Mail Company placed on the route its new iron steamer City of San Francisco, together with its iron steamers Colima and Granada, the last named two for one trip each, pending the arrival from the East of its new iron steamers City of Sydney and City of New York. All the above steamers were in the service in 1876.

The Pacific Mail Company in this second attempt covered and controlled the Australia line for ten years, or from November, 1875, to November, 1885.

Upon the surrender of that control, the Oceanic Steamship Company, which had been operating a semi-monthly line for two years between Honolulu and San Francisco with its fine iron steamers Alameda and Mariposa, took up the service by placing these two steamers and the Australia and Zealandia on the route between San Francisco and Sydney via Honolulu and Auckland.

Under this arrangement there was no break in the continuity of the service or in its efficiency. The Pacific Mail Company had given the Australians the longest and best term of service they had ever enjoyed with California, and this was fully maintained by the Oceanic Company.

These four steamers of the Oceanic Company covered the route pending the arrival of three others that had been ordered to be constructed in Philadelphia.

The first of these new steamers to arrive was the Sierra in November, 1900. She made the trip from Philadelphia to San Francisco in 39 2-3 days, the best on record up to that time. The Sierra is 3,756 tons, and for the past year or more she has been doing as good service as ever in the Honolulu trade.

The other two steamers built at Philadelphia arrived in the following two months, the Sonoma reporting at this port in December, 38 days and 9 hours, and the Ventura, 3,936 tons, in February, 1901, in 39 days.

Immediately upon the arrival of these steamers they were placed on the Australian route and performed excellent service, making their trips with clock-like regularity.

The schedule in force called for a four-weekly service and these steamers met every requirement for speed and comfort.

The company had a small subsidy for some years, and even that pittance was finally withdrawn.

In the report of the Oceanic Company for January 21, 1902, the gross earnings of the vessels were given at $2,002,219; operating expenses, $1,908,036. The net loss for that year's work was reported at $212,726. Only one dividend of $12,500 was paid that year, and this was on February 1, 1901.

At that time the company had been in operation over nine years and for seven years on the Australian route via Honolulu. The dividend paid on February 1, 1901, was numbered 113.

The assets of the company at the close of 1901 were given as $3,957,276, of which $3,649,646 represented the company's interest in seven steamers, the last three new ones being valued at $808,000 to $825,000 apiece.

The liabilities were $2,405,000 for outstanding bonds and $646,037 due J. D. Spreckels & Bro.

In 1902 the deficit between the gross earnings and the operating and general expenses was $349,304. The net loss in the following year under the same comparison was $234,672.

The value of the fleet at the close of 1902 was given as $4,101,884 and at the close of 1903 at $4,363,356.

Subsequent years in the same service were attended with loss.

In 1908, the Oceanic Company withdrew from the Australian route and put all the steamers engaged on that service out of commission as fast as they arrived. Three of the vessels so retired were the latest ones built for the company, namely, the Sierra, Sonoma and Ventura.

The Sonoma and Ventura have been lying idle in this port ever since.

The Sierra was placed in the Honolulu trade in March, 1910, in place of the Alameda, sold to the Alaska Packers Association.

It is doubtful if any of these experiments in running steamers between California and the Colonies or the Colonies and California—some of them having been inaugurated at one end of the route and some at the other—have ever netted the promoters much profit.

The traffic in freight and passengers has been altogether too one-sided to produce the best results, or even remunerative results at all commensurate with the value of the time and capital put into the enterprises.

Between 1871 and 1886, both years inclusive, there were 184 steamer arrivals at San Francisco from Australia, representing 395,600 tons of tonnage.

Despite all these failures to maintain an uninterrupted steamer service between California and the Colonies, and despite all the discouragements and drawbacks that have attended these experiments, the route was not long abandoned by the Oceanic Steamship Company, than other parties, principally in the Colonies, took up the work so willingly laid down.

As a result, there has been some sort of steamer service between Sydney and San Francisco by other parties and other steamers. It is barely possible that some of these efforts may result in establishing a distinctive and regular line between the two points.

This is not impossible, and such a result is becoming more and more likely as the years go by. There is no way of reaching Australia from the mainland than by water. The Colonies have long maintained a monthly steamer line between Sydney and British Columbia, and several steamers have been loaded at Newcastle with coal for San Francisco. Steamers with passengers and assorted freight ought to be able to compete with steam colliers.

Steam Line to Society Islands.

There has been more or less trade with Society Islands by San Francisco for many years, but until within the last few years most of this traffic has been performed by sailing vessels.

Every little while dissatisfaction made over some long trip by a sailing vessel has brought out the desire for a steam line on that route from this port, but this desire has been generally suppressed by the statement that such a service was impracticable without a subsidy, and every effort to obtain such aid has failed.

The first serious attempt to establish such a line was made in 1885, and it came about in this way. The Oceanic Commercial Society of Hamburg owned the German iron steamer Raiatea, and she was sent out from that port to Tatiti, and thence to San Francisco, arriving here April 13, 1885, in a trip of 19½ days from Tahiti.

She was immediately put on the route to Tahiti. She made four round trips in 1885 and five in 1886. The up trip consumed from 21 to 26 days, which was hardly much better than the average time of sailing vessels. She could get no subsidy for carrying the mails, and hence there was no inducement to shorten the trips.

The line was practically abandoned before the end of 1886. On her May trip down, after discharging cargo, she was sent to Valparaiso in hopes of finding a purchaser there.

Failing in that, she came back to this port in September, and then made two more round trips to Tahiti.

Her last departure from this port under that renewal of service was in January, 1887. At that time she was under charter to L. Sresovich & Co. for two round trips between San Francisco and Tahiti.

But she never returned, and she never will. At 2 o'clock on Sunday morning, February 13, 1887, the rotund German, Captain Vierick, was aroused and called to the deck by the cry of fire.

In looking for the origin of this alarm he found it when his whiskers and eyelashes were burned. He immediately ordered the engine stopped, and the vessel brought to, so as to stop the draft. As there was considerable oil on board and no chance of extinguishing the fire, the boats were lowered and the passengers and crew hurried into them, when the steamer was abandoned to her fate.

Captain Vierick had been often laughed at for keeping a compass on the small boats, but it came to be of great service at last.

At the time of the accident, the steamer was not far from the Islands, and the small boats were headed in that direction, where they arrived safely, though the occupants suffered considerably from the great heat and light diet.

One of the passengers, Mr. Briel, died the next day after leaving the steamer. It was said that he died from fright. It was also reported that owing to the rapid spead of the flames, he was drawn from his berth through a bullseye not over 12 inches in diameter.

Subsequent to that event, there were occasional trips made by steamers on the same route, but no one had the courage to install a service with any promise of permanency.

It was only a few years ago that the Oceanic Steamship Company undertook the task by placing in that service its splendid steamer Mariposa, which has maintained a monthly service with much regularity ever since.

It is hoped that a service as frequent and as good may be maintained indefinitely. The trade is not large, and may never become very important. The cargoes down are of moderate size, being of a value of $30,000 to $40,000. The up cargoes are still smaller and of less value.

The Society Islands are capable of producing more freight, but the difficuffilty has been in getting labor. The natives are not disposed to do any more work than they can help, and other laborers appear to follow their example.

The climate is said to favor inactivity, and that is an element hard to overcome. Modern methods of working the soil might help out some if applied.

The islands can produce cotton and sugar and rubber as well as cocoanuts and tropical fruits. California used to consume many boxes of Tahiti oranges.

In addition to all this, the line ought to be maintained for the pleasure if affords tourists. A trip around the world that does not include a visit to the Society Islands is not a complete success. The Mariposa makes the run in twelve days and trips so far have been devoid of accidents.

Steam Lines to South America.

South America sent some steamers to San Francisco in the early fifties. Two steamers from that country are known to have arrived in 1854.

Between 1856 and 1865, an interval of ten years, the tonnage arrivals of steam and sail at this port from South America amounted to 81,160 tons, or from 6,900 tons in the former to 16,200 tons in the latter year.

The tonnage sent from San Francisco to South America was very much larger. There was an abundance of idle tonnage in this port during that interval, and it was drawn upon quite freely for the guano and dyewoods trade. The total sent hence to that country for these and other purposes was 573,000 tons, equal to an average of 57,300 tons per annum, and it was quite evenly distributed during that interval.

Since 1865, there have been many attempts to inaugurate a permanent steamer line between South American ports and San Francisco, both for account of Peru and Chile, but most of them were abandoned after a few months of unprofitable experience.

In later years these attempts have been of a more enduring character. However, because of the many interruptions to the service, it is hardly worth while to go into the details of these operations prior to 1900.

In the first decade of the present century there has been considerable improvement in the service, though in some of these years there have been some weak spots, especially in the steamer movements.

In 1901, the arrivals at San Francisco from South America numbered 60, representing 102,600 tons of tonnage, including 27 steamers of 47,100 tons.

In the very next year there was a falling off 50 per cent, the total arrivals being 30 of 51,400 tons, including 11 steamers of 18,400 tons.

There was quite an improvement in 1903, when the arrivals were 23 of 64,600 tons, including 18 steamers of 54,400 tons.

In 1904, so far as can be recalled, there was only one steamer and 12 sail vessels, with an aggregate tonnage of 20,400 tons.

In 1905, the aggregate movement was 21,000 tons, including 8 steamers of 17,000 tons.

In 1906, there was 25,200 tons, including 10 steamers of 22,200 tons.

The 9 steamers in 1907 registered 21,600 tons. There were no sail vessels that year.

For the following two years the movement was quite even, and each case double what it was in 1907. The total for 1908 was 43,600 tons, including 12 steamers of 38,500 tons, while the total for 1909 was 43,500 tons, including 12 steamers of 37,600 tons.

The year 1910, the last in this review, was the best for the entire decade. There were 31 arrivals that year of 104,400 tons, including 30 steamers of 102,600 tons.

The changes between steamers and sail vessels in that interval were quite marked.

The total arrivels for the decade were 221, of 498,800 tons, including 138 steamers of 360,800 tons of tonnage.

At present the service between California and South America is practically in the hands of steamship owners and they are likely to retain it and develop it even more extensively and rapidly than during the past decade.

W. R. Grace & Co. have been prominent in this trade for many years.

German Steam Line.

This is better known as the Kosmos or Hamburg Line.

This German enterprise was formed in Hamburg in 1899. It contemplated a monthly service between Hamburg and San Francisco via sundry European ports, the Straits of Magellan and South America.

It was a bold undertaking, and required considerable courage and capital. Nothing like it had been previously attempted. The distance to be covered was of unusual length, the ports of call on the way many, and the trip was likely to consume one hundred days or more, though it has been covered in much less time.

The first steamer entered out was the Tanis, 1,821 tons, which arrived at San Francisco on December 14, 1899, in a trip of 89 days. Evidently this steamer did not make as many stops as those leaving subsequently, the trips of nearly all of which have exceeded 100 days, and many of them have been beyond 110 days, including some that took 120 to 130 days for the voyage.

The Tanis left here on her return trip on December 21, 1899, after a stay here of just one week. The cargo she took from this port was valued at $89,800.

There were fourteen steamer arrivals in this line in the first fifteen months, which virtually fulfilled the promise of a monthly line.

Six more steamers arrived here in the same line before the return of the Tanis on September 6, 1900.

The fourteen steamers on the line that left here up to March 1, 1901, carried cargoes to the value of $1,504,000.

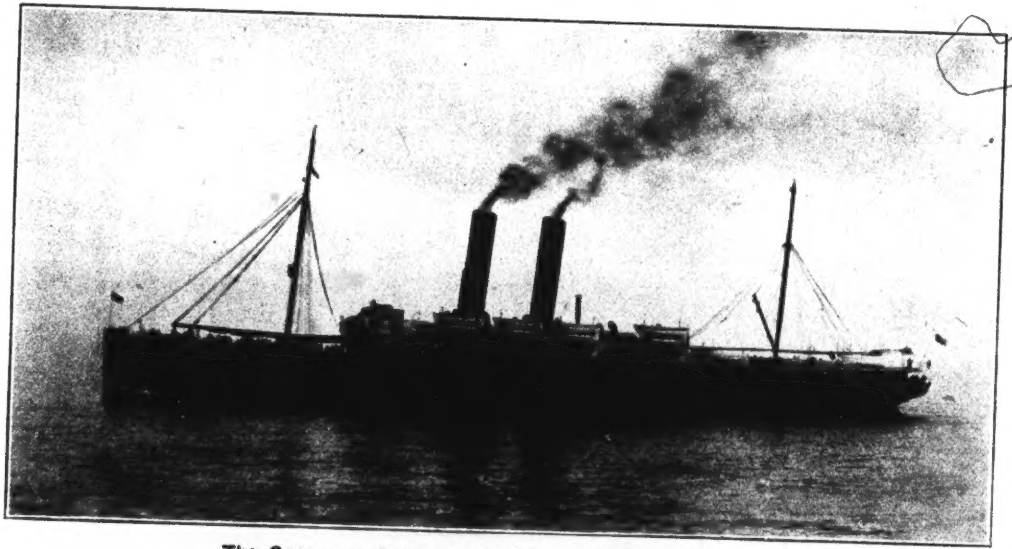
The managers were so well pleased with the results of the business that they promised to do better in the future, even going so far as to guarantee an average arrival every twenty days.

This promise was literally made good in 1902 when the arrivals averaged a little better than one for every twenty days, as there were twenty for that year, equal to one for every eighteen days.

Up to the close of 1910, the arrivals at San Francisco in this line numbered 184, representing 547,653 tons of registered tonnage. The largest number in any one year was 22 in 1907, representing 68,900 tons, while in 1910 the arrivals were 16 of 58,665 tons.

In the last four years there were 77 arrivals in this line, showing an average of one arrival for every 19 days.

Considering the long route and the many ports of call, and the unavoidable delays incident thereto, the above



The Governor of the Pacific Coast Steamship Company.

record is an exceedingly good one and shows a commendable persistence in the overcoming of obstacles.

Soon after the inauguration of the line, the service was extended so as to include Puget Sound ports, and after discharging the freight designed for distribution here, the steamers proceed to the Sound, calling at San Francisco on the return to finish cargo before starting on the long trip home.

When this line was first proposed, there were some doubts about the feasibility of the service, not from a navigation point of view, but from the financial standpoint.

The fact that the service is now in its twelfth year is pretty good evidence that the profits have been satisfactory to the parties interested, despite the losses and minor accidents that have been experienced.

Around the World Line.

Several attempts have been made to establish an around the world line of steamers, starting from some European port and via the Suez Canal to India, China and Japan, thence back via the Pacific Coast and the Straits of Magellan or Cape Horn to Europe.

Some of these lines were started from Puget Sound and others from some port in Europe.

One of the latest ventures of this kind was a French line starting from Havre via the Suez Canal and the Orient and thence back to Europe via San Francisco.

The first steamer in this line reached San Francisco in June, 1909. Three others followed in the last half of that year and six more during the year 1910.

Thus far in 1911 there has been only two, one of these leaving here on February 3d, and the other on April 1st. This is considered the last of the enterprise for the present at least.

In all, six different French steamers were employed in this service, and the San Francisco agents were G. W. McNear & Co.

American Hawaiian Line.

It began to be realized more than a score of years ago that steam was encroaching upon sail in the ocean carrying trade, even in the long routes that at one time were considered impossible to cover by steam because of the large quantity of coal that would be needed between the port of loading and the port of discharge.

This condition was brought home with much force in American shipyards, where the inducements to build sailing vessels had well nigh disappeared.

To save the entire abandonment of the one and only route still left to American shipping, namely, the domestic trade between the Atlantic and Pacific, it became imperative to construct a line of steamers to cover the all-water route between San Francisco and New York via the Straits of Magellan.

This was known to be something of an undertaking, for big iron steamships cost money, especially when built in this country, and that a good many of them would be needed to meet the volume of such trade.

The proposition to build such a fleet required careful consideration and much counsel from those best informed in a matter of such grave importance.

Even the most wealthy do not like to put millions of dollars in an enterprise without some pretty good assurance that it will pay, or at least that they can get back in time a new dollar for the one invested.

Finally it was decided to go ahead, and orders were given both on the Atlantic and the Pacific to proceed with the construction of a sufficient number of steamers with large carrying capacity for a service between New York and San

Francisco, and incidentally between other Atlantic and other Pacific ports.

A corporation was formed under the name of the American-Hawaiian Steamship Company with an ample capital and a strong directorate.

With the settlement of these details, the contracts were let, and the work of building a big fleet of freight steamers under American auspices was simultaneously started on both sides of the country.

The keels for the first two were laid for the American at Philadelphia and for the Californian at San Francisco. The last named was the first to be completed and placed in service.

Owing to a delay in the completion of the American, the steamer Hyades was chartered to inaugurate the opening of the line westward from the Atlantic side.

The steamer Hyades registers 2,932 tons and arrived here on that first westward voyage of the new line in December, 1900.

It is to be noticed as a coincidence that the ship Alex Gibson, the last sailing ship at that time on the route between New York and San Francisco, arrived here in the same month, thus leaving that route entirely uncovered by sail vessels for the first time since 1849.

The new steamer American followed the Hyades from New York, arriving here in January, 1901. After discharging, cargo for the Hawaiian Islands to the value of $68,000 was taken, and she cleared for the islands via Puget Sound, taking a cargo of sugar from Honolulu to New York.

The new line at first and for some time afterwards was by the way of the Straits of Magellan, thus abandoning the route via Cape Horn which had previously been so generally used by vessels plying between domestic ports on the Atlantic and Pacific.

By the end of 1901, the new line had made a good start. In August of the same year, the company had four steamers in the service and had contracted for four more.

Before returning to New York, the Hawaiian made one trip to Honolulu, returning in June, 1901, with a cargo of 8,600 tons sugar, the largest of the kind that had been landed at this port up to that time.

The total amount of deep water tonnage that arrived at San Francisco from all sources in 1901 was 745,900 tons, of which 180,700 tons was represented by 86 freight steamer arrivals. The total amount of tonnage from domestic Atlantic ports included in the foregoing total was 46,300 tons, of which 38,900 tons was represented in the 15 freight steamer arrivals from that source.

On her first trip from New York in 1902, the steamer Californian came through in 62 days. The American came in two months later in 60 days.

The Nevadan arrived here on her first trip from New York June 25, 1902, in 61 days. She was followed by the Oregonian on her first trip of 60 days from New York.

Two more new steamers in the same line made their first trips from New York in the same year, the Nebraskan in October in 65 days and the Alaskan in November in 59½ days, so that by the end of 1902 there were at least seven steamers under the ownership of the company and in active service.

These seven steamers have since been increased to seventeen at an outlay by the company of $11,000,000. The big steamer Massachusetts was added in 1911.

Ten of the company's steamers arrived here from New York in 1903, the two new ones for that year being the Texan in a trip of 52½ days, and the Arizonian via Los Angeles in a trip of 60 days. The steamer Alaskan, which arrived in July, came by way of Panama, making the trip in 63 days from New York and 21½ days from Panama.

There were three other steamers from New York in 1903. These were the J. L. Luckenbach, 3,192 tons, in January, and the Minnetonka, 3,860 tons, and Minnewaska, 3,860 tons, the former in June in a trip of 88 days, and the latter in August, 84 days.

The Pacific Mail Company's steamers Korea and Siberia arrived here on their initial trips from Newport News, the former in July, 1902, in 59 days, and the latter in February, 1903, in 52 days.

The steamers J. L. Luckenbach, Minnetonka and Minnewaska returned to New York with good cargoes, the first going back in March, carrying freight to the value of $286,000, and the other two in the following September and October, one of them with 4,700 tons sugar and 785 barrels wine, valued at $470,000 and the other with assorted freight valued at $285,000.

At the close of 1903, the company determined to substitute oil for fuel instead of coal. The plant was first installed on the Nebraskan and she left here on January 23, 1904, for New York as an oil burner with freight valued at $175,000. The experiment was perfectly satisfactory, and that settled it for the other steamers of the line.

The completion of a railway enterprise in Mexico in 1908 was an event that the company had been anxiously awaiting for some time, as one that would greatly shorten the service between San Francisco and New York, and also between Honolulu and New York, for the transportation of sugar, in which it had been engaged for several years.

The steamer Isthmian, that had been built in this city, was loaded and cleared for New York direct with a cargo valued at $275,000 to take her place on the new route and on the Atlantic side.

The steamers Nebraskan and Nevadan were the first steamers placed in the new route on this side. The former left here on her first trip by the new way on May 28, 1908, and the latter on June 23d, each carrying through freight for New York valued at $27,500 and $25,000, respectively.

The steamers sailed hence directly for Salina Cruz, where the freight was put on cars and carried to Puerto Mexico, and there placed aboard the company's steamers direct for New York.

After two more round trips by the same steamer, with only through freight for New York in each case not exceeding a value of $30,000, arrangements were effected for enlarging the destinations to include distribution in European ports.

On August 20, 1908, the Nebraskan left for Salina Cruz, with freight for New York valued at $106,000, together with small consignments for England, Germany and Norway, and on September 12th the Nevadan followed with a value of $127,800 for New York, and $40,500 for Great Britain; and again on October 6th the Nebraskan took a value of $416,000 for New York, in addition to small consignments for Europe.

The first big steamer to be placed on this new route was the Alaskan, which left here on October 31, 1908, with a cargo valued at $1,327,300, including $1,264,300 for New York, the most valuable cargo up to that time that had ever been sent from San Francisco to New York. The remainder of the cargo was for distribution in Great Britain, Holland, Germany and other European countries.

Since then this trade between the Pacific and the Atlantic via the Tehuantepec route has increased as the months and years have come and gone.

While the service of the American Hawaiian Steamship Company from the very start has been generally satisfactory to shippers and importers on both sides of the country, it has been especially so since the opening of the Tehuantepec route.

A sixty day service via the Straits of Magellan was a great improvement over the average of 130 days by sailing vessels around the Horn.

Upon the opening of the Tehuantepec route, the service was still further cut to at least one-half the time formerly consumed on the route via the Straits of Magellan.

Later the time was still further lowered, some cargoes being only 21 to 23 days in transit.

Indirectly, Oregon and Washington have participated in the service, while Hawaiian sugar planters have found it of great value in disposing of the steadily increasing sugar crops.

Tramp Steamer Service.

While all departments of business are served in the main by those especially fitted for the same, there is always a large army on the outside willing to lend a hand for a short or long period as the inducement offers.

It is so with the ocean carrying trade the world over. Usually vessels are built for specific lines, routes or trade. When business fails in any one direction, these vessels are sent out to seek business, wherever they can find it, and any kind of business that may offer in the same way as a man seeks a job.

Of course some vessels have been built for the general market, and if when finished they fail to find a purchaser, the owners place them for any carrying business that may offer.

There have always been more or less of such idle vessels in all the great ports of the world. They happen to arrive at some port at the time when they are not needed, and the owners have to choose the alternative of retaining them in idleness or despatching them to some more favorable port.

At times, San Francisco has managed to utilize some of these tramp vessels, especially those of the steamer type.

In the pioneer days of San Francisco, the harbor contained many idle vessels for which there was literally no use.

That was before California furnished much freight of any kind for shipment across the seas. In some subsequent years, San Francisco with much difficulty secured the tonnage actually needed for its coast and deep water trade.

Tramp steamers got some business out of the port as early as 1873. But it was many years afterwards before that experience was repeated.

In 1881, under some rush orders for iron rails, several steamers were sent here from Europe with such cargoes at a reasonable rate of freight under a guarantee that they would be furnished return cargoes from this port.

For the year ending November 1, 1882, eight of these steamers with iron rails from Europe were loaded back,

In the decade ending with September, 1891, sixteen tramp steamers found employment at this port.

There were two other reasons for the large influx of tramp steamers in 1881 and 1882.

One of these was the big wheat crop that had just been harvested in California and the inadequate supply of sail tonnage to meet the urgent requirements of exporters.

Another and equally important factor was the desire to rush as many Chinamen into the port as possible, pending the adoption of legislation by Congress restricting importations of that character.

At the start, it was not known just what form this legislation would assume, but there was a proposition to do something to curtail the movement within reasonable bounds.

Parties interested in the employment of Chinese labor, fearing the supply might be cut off or greatly reduced, immediately sought to increase it even beyond their needs, so that they might have a surplus to meet the anticipated wants of the future.

The capacity of the steamers in the regular lines was found insufficient to meet this increased demand for coolie labor, and hence the necessity for the employment of tramp steamers.

The first tramp steamer to arrive under this arrangement was the Mee Foo, 1,200 tons. This was a Chinese steamer, owned and manned by Chinamen. A steamer bearing the same flag had arrived during the previous year. The Mee Foo made the trip over in 28 days.

There were four other tramp steamers from Hongkong in the last half of 1881, and seventeen more in 1882.

The Chinese Restriction Act adopted by Congress went into effect August 4, 1882. The effect on this form of immigration was marked.

For the year 1880, the whole number of passenger arrivals at San Francisco from China and Japan was 6,710.

In 1881, the number of such arrivals was 19,231, including 11,000 for the last half of the year.

For the first seven months of 1882, preceding the operation of the law, the number was 27,105, making over 38,000 in thirteen months, while for the last five months of 1882, the arrivals were only 300.

In thirty months, 33 tramp steamers of 67,000 tons arrived at this port.

At least two of these violated the passenger act restricting the number they could carry, one having an excess of 163 and the other an excess of 326.

The sources of this freight steamer tonnage for that year were as follows: Eastern Atlantic ports, 15 steamers of 38,933 tons; Germany, 16 of 36,951 tons; South America, 27 of 47,095 tons; Hawaiian Islands, 8 of 10,000 tons; British Columbia, 9 of 19,622 tons; Japan, 8 of 20,300; other sources, 3 of 7,545 tons.

In 1902, the steamer arrivals from all sources in the deep water trade were nearly 50 per cent greater than the sail arrivals. There were not many tramp steamers in this list, though among the few that did arrive there was one of exceptional size that secured a charter to take 3,000,000 feet of lumber and other cargo from Puget Sound to China.

In 1903, the freight steamer arrivals at San Francisco were 98 of 257,200 tons, against 76 of 196,500 tons in 1902. The sources of the freight steamers in 1903 were as follows: Eastern Atlantic ports, 14 steamers of 55,800 tons; Germany, 18 of 43,200 tons; Belgium, 7 of 18,952 tons; Hawaiian Islands, 36 of 80,900 tons; China, 12 of 31,500 tons; Japan, 8 of 21,600 tons; other sources, 3 of 5,500 tons. The steamers from Belgium brought needed steel rails for the Southern Pacific Company.

Little was done along this line for the next few years.

In 1896 there was a renewal of this sort of business on a very large scale. In the last six months of that year, twenty-five of these steamers took cargoes from this port.

All these steamers came from the Orient, and all were in ballast upon arrival, though one by way of Puget Sound discharged a cargo of tea before coming here.

After another lull of four years, quite a number of tramp steamers were sent to this coast, and most of them were fortunate in securing cargoes, seven of them being loaded here, seven at Portland and nine on the Sound. That was the record for the first half of 1901.

During the calendar year of 1901, there were 86 freight steamer arrivals at San Francisco, representing 180,700 tons of tonnage. These were altogether outside of the regular freight and passenger lines with the Orient, Panama, Mexico, Australia, British Columbia and the Hawaiian Islands. This was the largest amount of tramp and regular freight steamer tonnage up to that time.

The fifty freight steamer arrivals in 1900 represented over 100,000 tons of tonnage. About one-fifth of the total was credited to the regular Hamburg freight line, which contributed 11 steamers that year, or their equivalent.

Another factor in the tramp steamer situation that year was the urgent demand of the American and German Governments, incident to the troubles in China. In July of that year, there were twenty tramp steamers of 48,800 tons headed for San Francisco in response to these Government orders.

The steamer tonnage arrivals at San Francisco from all deep water ports in 1904 represented 945,000 tons of tonnage or more than double the amount of sail tonnage. The list included but few tramp steamers. Most of the purely freight tonnage that year was in the coal and sugar trade.

In the last few years, while there has been a steady increase in the tonnage represented by steamer arrivals at this port, tramp steamers have not figured to any appreciable extent in the movement, and this is probably true because of the wider sphere now covered.

Dollar Steamship Company.

This company has been in operation only a few years, and was founded by Robert Dollar, a prominent business man.

The nucleus for the enterprise was the purchase of the steamer Simon J. Murphy which arrived at this port from Baltimore in December, 1901. This steamer was given the name of Melville S. Dollar, and registered 921 tons.

The vessels subsequently added are the Bessie Dollar, 3,679 tons; Grace Dollar, 289 tons; Harold Dollar, 607 tons; M. S. Dollar, 2,713 tons; Hazel Dollar, 3,150 tons, and Stanley Dollar, 983 tons.

The Bessie Dollar is the largest addition to the fleet. This is a splendid steel steamer, built at Glasgow in 1905, and of course flies the British flag.

These steamers have not been confined to any special route or any particular class of trade, either in the domestic or foreign service.

They have always been open to any form of engagement for short or long voyages on the coast or in deep water, and they have been well employed. The latest addition to this line is the Robert Dollar, 3,400 tons.

California and Atlantic Line.

One of the latest deep water steam lines to engage in the commerce of San Francisco was put in operation in the latter part of 1910 under the name of the California and Atlantic Steamship Company.

This was the outcome of the re-opening of the all sail line between San Francisco and New York via Cape Horn by Bates & Chesebrough.

Upon the inauguration of the American Hawaiian Steamship Company's line between New York and San Francisco via the Straits of Magellan in 1901, the business of sending ships from the Atlantic to the Pacific was practically abandoned, except for a few coal vessels that found their way out from Baltimore and Philadelphia.

There was scarcely a ship loaded at San Francisco for a domestic Atlantic port from 1901 to 1908, respectively.

In 1902, there were three ships thus loaded and the same number in 1903, two in 1905, but not a single one in 1904, 1906, 1907 or 1908.

Prior to the suspension of the service in 1900, about a dozen ships loaded here annually for New York.

In 1909, the Cape Horn route received a renewal of attention on this side with the despatch of the ships Aryan, Magna Reva, Edward Sewall and Astral, the barkentine Good News and the steamer Shawmut, the last named having been sent back to her home port.

The Cape Horn route was similarly covered from this port in the first half of 1910, when the ships Aryan, Shenandoah, Magna Reva, Acme, Dirigo and S. B. Carleton were sent out.

In the last quarter of 1910, Bates & Chesebrough, as representatives of the California and Atlantic Steamship Company, secured some half a dozen steamers, which were put on the route between San Francisco and the Isthmus.

Eleven good sized cargoes of assorted freight were despatched by these steamers in that interval, with through freight for domestic Atlantic ports, the same being reshipped across the Isthmus to steamers on the other side, including a side service with Charleston and New Orleans.

During that brief interval the new company made quite a stir in transportation circles between the Pacific and the Atlantic.

Pacific Coast Steam Lines.

Pacific Coast ports were given steam service promptly and generously in 1849, though most of the earlier efforts were confined to the Southern coast, the steamers running as far south as San Diego.

At the same time the Pacific Mail Company, under its first subsidy, sent its steamers as far north as Portland, Oregon.

The California Steam Navigation Company took up the coast service quite early, subsequently relinquishing the same to Holladay & Brenham, the representatives of the California and Mexican Steamship Company and the Northern Pacific Transportation Company.

In September, 1872, the Pacific Mail Company bought all the Holladay steamers and interests south of San Francisco, and operated that service until 1874, and then sold out to Goodall, Nelson and their associates.

The firm of Goodall & Nelson was formed in 1860. At first the business of the firm was confined to the employment of tug boats and the supplying of vessels in the harbor with fresh water.

Things went along in this way for about five years before an opportunity presented for branching out. It happened in this way:

Brennan & Co. had an interest in the little steamer Salinas, 98 tons, and in several small sailing vessels, together with a number of landings, warehouses, etc., on the coast between San Francisco and Monterey.

The firm became embarrassed, and its interests in these properties were sold by order of the sheriff, and Goodall & Nelson became the owners of the same, their bid being the highest.

That was the second step in the progress of the firm, but not the last nor the best.

The Salinas was originally 147 tons, but was cut down to 98 tons by the law of 1882. She was built in this city in 1861, and was continuously in service for 25 years or more.

Her earnings for that period were more than five times her cost, and she was the pioneer of a large and fine fleet of steamers that subsequently passed to the control of this firm and its successors and assigns.

With this little steamer and three small schooners, Goodall & Nelson went quietly along until 1868, when they built the propeller Santa Cruz, 295 tons, at a cost of about $80,000. This was followed in 1869 by the construction of the steamer Monterey at a cost of $60,000.

Up to that time comparatively few steamers had been built here for ocean service.

In 1869, the steamers Kalorama and Donald, 469 and 136 tons, arrived here from New York under sail. Both had been used as Government transports in the Civil War. The Donald was one of the steamers built for General Ward in China, but he died before it was delivered.

Both steamers were put on the Southern coast route, but were sold to Goodall & Nelson in 1871. In the following year, the firm purchased the steamer Constantine.

George C. Perkins joined the firm in 1872, when the title was changed to Goodall, Nelson & Perkins. In 1879, Mr. Perkins was Governor of the State and later became United States Senator from California, a position he still holds. He is the Chairman of the Naval Committee.

In 1874, the company acquired additional steamers from the Pacific Mail Company and others. As a result of these purchases, John Rosenfeld was taken into the firm, which was then incorporated under the name of Goodall, Nelson & Perkins Steamship Company, with a capital of $2,000,000, and to this corporation all the property was transferred.

At that time, the company's fleet consisted of the steamers Salinas, Santa Cruz, Monterey, Kalorama, Constantine, Donald, Los Angeles, Fideliter, Gipsy, Senator, Pacific, Mohongo, Orizaba, California and St. Louis, together with the schooners Sea Nymph, Mary Ellen and Onward.

The California mentioned in the above list was the first steamer sent to the Pacific Coast by the Pacific Mail Company.

The purchase of the above steamers gave the new corporation a swing of the whole coast from San Diego to Victoria, B. C.

In 1876, Captain Nelson retired, and Edwin Goodall, a younger brother of Charles Goodall, Sr., took his place. At the same time the corporate name was changed to Pacific Coast Steamship Company.

Goodall, Perkins & Co. continued as owners of the majority of the stock until 1882, when they sold their interest to the Villard combination, continuing, however, to act as general managers of the company, and at the same time securing the agency of the Oregon Railway and Navigation Company's steamers.

Several other changes in property holdings took place between 1874 and 1883. In that interval three other steamers were purchased, three others were sold and five were lost in the service.

In 1883, the company took a new departure in the construction of a better class of steamers. Iron propellers had become popular, and an order was given to Cramp & Sons, Philadelphia, for the best steamer that could be made.

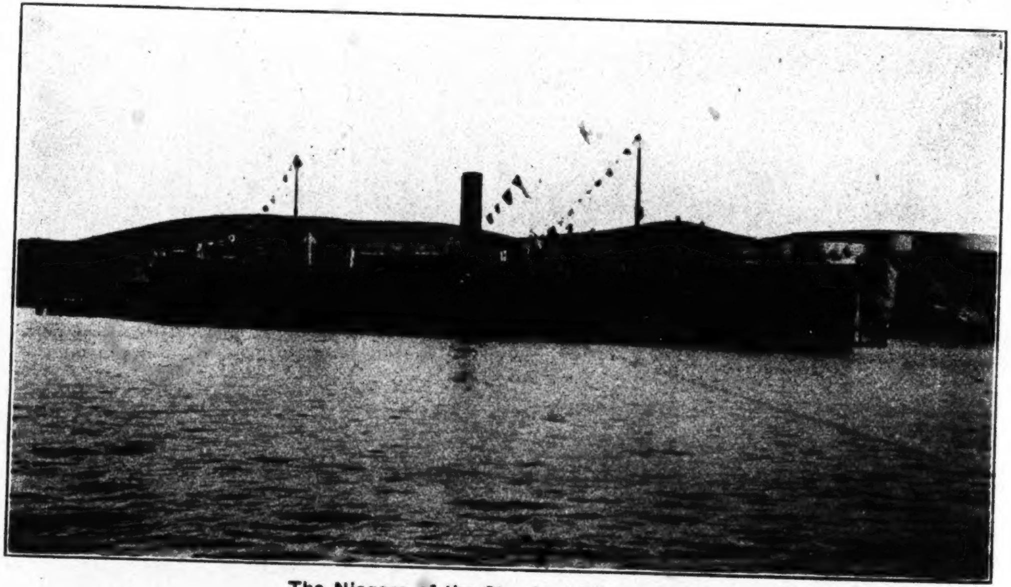
When this vessel was still on the stocks, Russia began to anticipate trouble with some European power, and the Minister of War, in looking about for steamers, concluded that the one being built by Cramp & Sons for the Pacific Coast Company was just what he wanted, and he purchased it for the Russian Government, the Pacific Company realizing a profit of about $100,000 in the transaction.

Later, an exact duplicate of the one sold to the Russian Government was built by Cramp & Sons and sent to the Pacific Coast for the Pacific Coast Steamship Company.

Two more iron propellers were subsequently built for the company. One of these was the Santa Rosa, built by John Roach & Sons in 1884 at a cost of $600,000. Other steamers were added to the fleet by purchase, in order to make good some further losses and others that had been ordered to be broken up.

In September, 1887, the fleet controlled by and in the service of the company consisted of eighteen steamers. These were all classed as propellers, and five of them were constructed of iron. All but three were owned outright.

The iron propellers owned by the company were the Queen of the Pacific, State of California and Santa Rosa, all first class and registering 1,200 to 1,600 tons. Those under charter were the iron propellers City of Chester and



The Niagara of the Standard Oil Company.

George W. Elder and the wooden propellor Mexico. The little steamer Salinas was one of the fleet, and was doing good service.

Eleven of the steamers controlled by the Pacific Coast Steamship Company in 1887 were of comparatively small carrying capacity, registering from 100 to 800 tons, all wooden propellers. There were also two other wooden propellers in the list, of 1,200 and 1,300 tons, respectively. All of these wooden vessels have since been lost or otherwise disposed of.

One of the iron propellers in the list was the City of Chester, 800 tons, which was subsequently lost in collision. The other one was the George W. Elder, 1,200 tons, which is still in service, as are also the other three iron propellers in the list of 1887, except the Santa Rosa, together with a dozen others.

Despite all the varied opposition steam lines that have been placed in the domestic Pacific service in the last quarter of a century, the Pacific Coast Steamship Company, an enterprise based on the little steamer Salinas of 1861, has maintained its position by keeping up a high standard of service.

The route it covers extends from British Columbia on the north to Mexico on the south. It also has one or more steamers in the Alaskan trade.

The steamer Santa Rosa was wrecked on the Southern California coast a few months ago.

The latest additions to its line are the large iron propellers Governor and President, each about 2,400 tons register.

The San Francisco and Portland Steamship Company was formed in 1904, taking over the service of the Oregon Railroad and Navigation Company. The steamers first put in operation by the San Francisco and Portland Company were the Columbia and George W. Elder. Later the St.

Paul, Senator, and State of California, the last named two by charter from the Pacific Coast Steamship Company, and the Aztec, City of Panama, and Costa Rica by charter from the Pacific Mail, were added to the service.

In 1909 the company bought the transport Lawton, converted her into an oil-burner and changed her name to Rose City. Later the Kansas City was purchased from an Eastern company.

In the same year the San Francisco and Portland Company had constructed at the East the steamers Bear and Beaver, each 357 feet long, with a gross tonnage of 4,500 tons. These were placed in service last year.

The last named two, together with the Rose City, are now being operated between Los Angeles, San Francisco and Portland, and are among the best equipped vessels in the Pacific coastwise service.

Not to be outdone by these evidences of enterprise, the Pacific Navigation Company last year brought out from the East the turbine steamers Harvard and Yale, both of which were placed upon arrival in the service between San Pedro (the port of Los Angeles) and San Francisco. These are considered the speediest steamers in the coast trade, with a schedule of 18 hours between the two points, which has since been maintained with clock-like regularity, while some of the trips have been made in 17 and even in 16 hours.

In March, 1911, the Pacific Navigation Company extended the service to San Diego, under a schedule of 25 to 28 hours up and down.

In 1887, there were 54 steamers of 32,400 tons register in the Pacific Coast service, of which 13 had a registered tonnage in excess of 1,000 tons, the extremes of these large vessels being 1,200 to a little over 2,000 tons.

The largest of the other 41 steamers was 900 tons and the smallest 90 tons, while 28 of the number registered less than 500 tons.

Even as early as 1887, steamers were crowding sail vessels from the Pacific Coast service.

Most of the smaller steamers were schooner rigged, and built for the freight trade, bringing produce of all kinds to San Francisco, including even coal and lumber.

An illustration of the encoachments of steam on sail during a period of five years at that early date is furnished by a comparison of the arrivals of vessels in the Pacific Coast trade in April, 1881, with April, 1886. In the former year these arrivals were 268 of 81,430 tons, and in the latter year 227 of 81,000 tons. In 1881, the steam tonnage was 40 per cent of the total, while in 1886 it was 50 per cent. In August, 1887, of the 295 arrivals in this trade 132 were steamers.

From 1849 to 1886, both years inclusive, a period of 38 years, there were 79,814 arrivals of vessels of all kinds in the Pacific Coast trade, representing 18,350,510 tons of tonnage.

In the last five years of that period these arrivals averaged over 3,000 per annum and the tonnage represented by the same over 1,000,000 tons per annum.

The expansion of this service in the last twenty years of the interval covered was something remarkable.

In 1866, these arrivals were 1,654, representing 320,800 tons, while in 1886 there were 3,252 arrivals, representing 1,000,400 tons.

In the former year, railroads had not penetrated the interior of the State to any appreciable extent, and most of the produce of the interior intended for tide water had to be transported by vessels, while in the latter year, there were many more miles of railway available for the service, and yet despite these added facilities of land carriage, the coast vessels steadily increased in number and in aggregate carrying capacity.

Steamers in Sugar Trade.

Sugar transportation between the Hawaiian Islands and San Francisco in the early years was performed exclusively by sail vessels.

In recent years, steamers have been doing that work to the exclusion of nearly all sail vessels.

In this trade of late, the Matson Navigation Company has taken a prominent part. It has in its fleet three of the largest steamers in that trade. These are the Honolulu, Lurline and Wilhelmina; also the Hilonian and Enterprise.

The Oceanic Steamship Company's steamer Sierra is also in the same trade.

All these steamers have fine cabin accommodations for passengers, and all make quick trips.

All the steamers of the Pacific Mail Company in the China trade call at Honolulu.

The innovations of steam in the direct sugar trade between the Hawaiian Islands and domestic Atlantic ports has been equally marked.

For some years prior to 1895, the Hawaiian planters sent all their sugar to San Francisco for distribution. In time, the quantity received here was in excess of the wants of the State and adjacent territory.

Usually this excess was reshipped to the other side of the country by rail, or by sail via Cape Horn, or steamer via the Isthmus.

Sugar shipments direct from the islands to Eastern refineries were inaugurated in 1895.

This movement was the result of a failure to obtain a satisfactory renewal of freight rates by rail from San Francisco.

This initial service from the islands to New York direct by the all-water route was in 1895, when seven ships were despatched on the long trip with 21,661 tons sugar.

By a singular coincidence, the quantity so diverted was just what the railroad lost, as the shipments hence by rail that year were 67,054 tons, against 88,886 tons in 1904.

In 1896, fifteen ships were engaged for the same island trade, representing 38,000 tons of tonnage, and they carried 45,867 tons sugar. These ships were chartered for the service at $5.50 per ton to New York and $5.75 to Philadelphia.

In 1897, this sugar fleet embraced 30 ships, the first of which left on December 24, 1896, and the last on July 28, 1897.

The charterers of the fleet for that year had the option of delivery at San Francisco, New York, Boston, or Philadelphia. At least 30 of the ships chartered under that arrangement in that year proceeded with their cargoes to domestic Atlantic ports.

These ships carried 1,465,938 bags of sugar, equal to 181,043,343 pounds, or 90,521 short tons, showing an average of 3,000 tons to each ship. Rates for such transportation in that season were $5 to $5.50 per ton, equal to $475,000.

All these 30 ships arrived at their destination prior to December 1, 1897, except one. This was the ship Commodore, which was wrecked on the voyage, the first and only accident of the kind to date.

Four of these ships made the voyage inside of 100 days. The best trip was 90 days, by the Susquehanna. The S. P. Hitchcock and W. F. Babcock each made the trip in 92 days, and the Luzon in 98 days. The Henry Villard covered the distance in 100 days, and five others in 103 days. The longest trip was made in 144 days. Four others made it in 130 to 139 days, while all the others went under the 128 day mark.

In 1898, the fleet from the islands to New York consisted of 13 ships, which took 38,186 tons sugar. The decreased shipments direct that year was due to a greater diversion overland from San Francisco incident to more favorable terms.

In 1899, 14 ships took 43,767 tons sugar from the islands direct to New York and Philadelphia. Three other ships had been chartered for the same service. One of these was the Edward O'Brien, wrecked off Diamond Point, while making for Honolulu. The other two were the Aryan and the George Curtis, the former failing to make the trip because of needed repairs, and the latter because of sale to a San Francisco firm.

About 20 vessels were chartered to load in the same service in 1900, but several of these charters were subsequently cancelled, while four of the ships took their cargoes to San Francisco.

The number loaded for New York in 1900 was 13 of 25,500 tons of tonnage. It is estimated that these took 40,000 tons sugar to Eastern refineries in that year.

During the first six years that this exclusively ship service between the islands and Atlantic ports was in operation, 92 ships took 280,000 tons sugar direct to Eastern refineries.

Apart from the loss of one cargo by the wreck of the Commodore, the only other disaster to this large fleet was some damage by fire on the iron ship Kenilworth, which went into Valparaiso, where the damaged portion of the cargo was removed, and the remainder was taken to destination.

Prior to this direct movement between the islands and New York, and in consequence of an over supply of Hawaiian sugar in San Francisco, a considerable shipment of this sugar was made direct from this port to New York. Eight ships were engaged for this purpose, carrying 21,676 tons, valued at over $2,000,000. Four of these ships went in 1887 and four in 1888.

In 1900, upon the completion of the first four steamers for the American-Hawaiian Steamship Company, steamer service was introduced in the direct sugar trade of the islands, with ports on the Atlantic. This company has a large fleet of steamers in that trade.

In the last ten years, for the most part, Hawaiian planters have sent sugar designed for Eastern refineries under steam rather than under sail as formerly.

Steamers in Coal Trade.

Prior to 1871, it was not thought feasible to employ steamers in the transportation of coal between distant points on the deep water routes, at least on this side of the country.

Despite this impression, John Rosenfeld, a prominent coal dealer in San Francisco and largely interested in the British Columbia coal mines, concluded he would try the experiment.

He had been transporting coal from British Columbia to San Francisco for some years in the ship Shooting Star, which arrived here from New York in 1863.

The introduction of steam in the coal trade might have been further delayed but for one circumstance, and that was the ability to secure a good iron steamer for this trade at a reasonable rate. This was a tramp steamer sent here for a market.

Mr. Rosenfeld purchased this steamer and fitted it up for the coal trade between Vancouver, B. C., and San Francisco. That was the first attempt at this port to place this character of freight under steam.

This must have been a successful venture, for from that day to the present the bulk of the British Columbia coal trade has been under steam, and from a single steamer of 1,200 tons registered tonnage, there have been of late several steamers of much larger capacity regularly employed in that trade, some of them with cargoes of over 6,000 tons.

In fact, there has not been for some years hardly any coal transported from the mines on this coast in any other vessels than steamers.

In the meantime, this feature in the coal carrying trade has been extended to much longer and less feasible routes, until now every part of the world has been covered.

The main supply of foreign coal at this port has come from Australia, and of late years, many steamers have arrived here from the Colonies with such cargoes.

In a similar way, cargoes of coal have been received here from Japan, Eastern Atlantic ports and Europe.

The Government has been using steamers for several years in transporting coal from Virginia to the Pacific fleet in these waters.

Steamers in Lumber Trade.

The use of steamers in the Pacific Coast lumber trade began in the seventies. The first attempts were noticed in the construction of small wooden schooners with steam as an auxiliary power.

It did not take long, nor the building of many steam schooners, to prove that such means for transporting lumber from one point to another along the coast could be undertaken and carried on with a fair degree of profit.

At least twenty of such schooners were in the coast lumber trade in 1887, according to a compilation made by the writer in that year. Most of these ranged from 100 to 200 tons register, while all were under 300 tons.

The building and use of these schooner rigged steamers for the Pacific Coast trade did not cease with the construction of the first twenty, nor was the use of such vessels confined entirely to the lumber trade. They became available for all sorts of trade, and the number steadily increased for many years afterwards.

The success attending lumber transportation under steam on these short voyages gradually led to the adoption of the same means in the same trade on the long routes, and of course to the use of larger vessels.

A registry of the vessels owned on this coast on January 1, 1911, shows a list of 160 steamers adapted to the lumber carrying trade, and which were in service at that time or had previously been so employed.

The rated lumber carrying capacity of these steamers ranged from 100,000 feet to 3,700,000 feet.

It is true that most of the lumber steamers in the foreign trade have been loaded at Puget Sound and Oregon ports, and most of these have been under foreign flags.

The service has afforded special attractions to what are known in maritime circles as tramp steamers.

In the last four months of 1910, the lumber clearings from the coast in the deep water trade were 156, of which 53, or one-third, were steamers, including 36 under the British flag, 11 under Norwegian flag, and 6 under the German, Japanese, Austrian and American flags.

Steamers in Wheat Trade.

Forty years ago it was deemed impracticable to use steamers in the grain carrying trade on the long routes, and yet charges for such service were much higher then than they were some years later when steamers began to be so used.

It was in 1873 that San Francisco loaded its first steamer with wheat for Europe, and this was not exactly under normal conditions.

The vessel upon which this honor was conferred was the British steamer Quang Se. This steamer had been in the tea trade between China and this port under time charter that expired upon her last arrival here.

It was necessary to return her to her home port in Great Britain. She was offered a wheat cargo and accepted the same. This cargo included 4,779 bbls. flour, 26,760 ctls. wheat and other freight, valued at $161,900. She sailed hence for Europe on November 15, 1873.

Of course this was an unusual event, and outward freights that year were very high. The experiment was not duplicated for many years.

Two events combined in 1881 to suggest grain shipments by steamer. One was the large wheat crop of 1880, and the inadequacy of sail tonnage to transport the same to a foreign market, and the other was the necessity of importing iron rails by steamers from Europe to meet the urgent demands of the Southern Pacific.

A concession on the rates for bringing the iron to San Francisco was obtained by a promise of a good rate on the wheat cargoes to be carried back to Europe by the steamers.

In the last five weeks of 1881 four of these steamers were loaded with wheat and cleared for Europe, together with four more in 1882, and one in each of the four following years.

These twelve steamers in those six years took 25,764 bbls. flour, 655,700 ctls. wheat and 31,417 ctls. barley.

One of these steamers was the Escambia, which came here by way of British Columbia. This steamer capsized on the bar in going out, and disappeared immediately. Three boats were launched, and most of the crew were taken off, but only four persons were saved. A combination of unfavorable conditions caused the wreck.

Another steamer in that fleet was the cable steamer

Silvertown. This steamer had recently completed the laying of a cable for account of South America, and was ordered back to Europe by way of San Francisco. This was the largest steamer to enter this port up to that time.

The Silvertown was chartered for wheat for Europe by John Rosenfeld, and the loading attracted crowds to the wharf. She carried 107,100 ctls. wheat, the largest cargo of the kind cleared up to that time.

In 1889, the charter of the little steamer Southern California, employed in the British Columbia coal trade, expired, and she was ordered back to Europe, taking as cargo 23,000 ctls. wheat.

In 1891, two more steamers followed, one with 91,188 ctls. wheat and the other with 69,550 ctls. barley. In the same year, eight small steamers were loaded here with breadstuffs for South America, on account of the partial failure of crops there.

The steamer for Europe with barley in 1891 was the first ever so loaded for Europe at this port.

In February, 1893, a steamer left here for Europe with 97,600 ctls. wheat.

The eighteen steamers that cleared hence for Europe between November, 1873, and February, 1893, took 31,133 bbls. flour and 1,017,885 ctls. grain.

The collapse of a wheat deal in 1895, and the purchase of a carry over stock of 175,000 tons wheat in May of that year, led to a renewal of exports by steamers. One steamer in that year loaded 111,300 ctls. barley and another 22,000 ctls. wheat.

A still more important movement of grain by steamers took place in the last half of 1896, when twenty-five steamers were thus loaded and cleared.

This fleet took 1,294,398 ctls. wheat, 1,090,789 ctls. barley and 57,155 ctls. rye, or a grand total of 2,442,342 ctls.

grain, equal to 122,117 short tons, on which the freight earnings were $724,748.

Four of these steamers took straight cargoes of barley, five barley and wheat, two barley and rye, two barley and miscellaneous cargo, and twelve straight cargoes of wheat.

Three of the steamers were chartered at 30s, six at 28s 9d, nine at 27s 6d, three at 26s 3d, three at 25s, and one at 22s 6d.

All these steamers came here in ballast from China, Japan and East Indies, though one had first landed a tea cargo at Tacoma.

All were iron vessels, nearly all British, and nearly all were chartered prior to arrival. Another lost a charter by not being ready to take cargo, and another failed to load that year by not reaching port in time.

Seven were cleared for St. Vincent for orders for any portion of the United Kingdom or the Continent, five direct to Antwerp, two to London, and one, respectively, to Leith, Hall and Bristol, four to Calcutta, and one, respectively, to Bombay, Coronel, Sydney and Algoa Bay.

This was decidedly the largest and most important grain fleet under steam to leave this port up to that time.

The first of the fleet to leave was the British steamer Linlithgowshire, on July 31, 1896. When twelve days out her machinery broke down beyond repair, and after drifting about in mid-ocean for several weeks, she was abandoned about 300 miles off the coast of Central America, the officers and crew making shore in small boats.

The first of the next fleet of steamers with grain from this port was the Siam, on December 12, 1900. This steamer had been under a time charter in the British Columbia coal trade, and as this had expired she was ordered home, taking with her a cargo of 87,300 ctls. wheat.

Six other steamers followed her in the first four months of 1901. These seven steamers took 770,668 ctls. wheat, five clearing for St. Vincent for orders, one for Barcelona, and one for Valparaiso.

Since 1901, comparatively few steamers have been loaded with wheat at this port. Low rates for ships for that service and the large decrease in the wheat crops of the State have practically eliminated steamers from that trade.

In the meantime, however, there have been some large shipments of barley from this port by steamer.

In the last six months of 1910, fourteen steamers hence for Europe either took whole or partial cargoes of barley, including three in the regular German line. Six of these steamers took over 100,000 ctls. each, including one with 150,000. Another with an equally large cargo was wrecked while passing out.

Steamers in California Oil Trade.

The large increase in the production of earth oil in California in the last decade has developed an entirely new demand for steamer tonnage on the Pacific Coast, both in the domestic and foreign trade.

Attempts at first were made to handle the water trade by sail vessels, and several fine steel ships were built expressly for that purpose and sent here from the Atlantic coast. These did the work fairly well for a short time, but most of them have since been eliminated.

Now the three most important corporations operating in the California oil fields and in the export trade have their own steamers, either by construction, purchase or charter. The Associated Oil Company has just added the large steamer W. F. Herrin, and the Union Oil Company the Oleum.

These corporations are the Associated Oil, Standard Oil and Union Oil.

Shipments of fuel oil were first made to the Hawaiian

Islands under sail. The second vessel in that trade was the Fullerton, with 598,000 gallons on October 4, 1902. The Marion Chilcott followed in November with 17,000 bbls.

While these movements were in progress, the Union Iron Works was executing an order for an iron steamer for this service. The Whittier, the name of the new steamer, left here for Honolulu on April 29, 1903, with 420,000 gallons of oil, and on the 1st of June took down her second cargo.

A week later she was followed by the steamer Argyll, with 30,000 bbls. Later other steamers were added to the service on the same route, including the Monterey and Rosecrans.

The first cargo of refined oil sent hence to China by steamer left this port September 10, 1904, by the British steamer Housatonic.

The steamer Senator was sent to Victoria on February 18, 1905, with 25,000 bbls. fuel oil. She was followed by the Whittier on April 6th with 10,000 bbls. This was the beginning of the oil trade with British Columbia.

On October 16, 1905, the British steamer Azov left here with 20,000 bbls. oil for Caleta Buena, the first cargo to South America.

On May 31, 1906, the steamer Seminole left for Calcutta with 2,200,000 gals. refined oil, the first sent hence to India.

On September 15, 1906, the first cargo of refined oil was sent to Mororan by the steamer Housatonic, which took 1,400,000 gals. This opened the trade with Japan, which has been as important as that with China.

The Standard Oil Company was behind all these movements with China, India and Japan. It had previously been serving these countries from the Atlantic side, but had found it more advantageous to transfer the business to California.

The first full cargo of case oil sent to Japan from San Francisco left on November 13, 1906, by the big steel ship Astral, which took 133,200 cases.

The Philippine Islands was the next division of the world to share in the benefits of California oil. The steamer Inteopolis left here for Manila on December 3, 1906, with 119,518 cases oil.

About the same time, the Union Oil Company, whose works are in the southern part of the State, with general offices in San Francisco, began exporting oil to distant markets, by sending a cargo of 25,000 bbls. by the steamer Argyll to Ancon. This cargo has since been followed by others, as there has been a good demand for oil in the construction of the Panama Canal.

The Union Oil Company has provided for a further extension of trade in that direction by putting down a pipe line across the Isthmus along the route of the canal. It has tanks for the storage of oil at either end of this pipe line, and will therefore be in condition to supply oil burning steamers passing through the canal, with needed fuel. This pipe line on the Isthmus will also make it possible to supply Eastern Atlantic markets with Pacific oil should there ever be an occasion for such service.

Thus far the oil shipments from this coast to Ancon have all been absorbed on the Isthmus, and that is likely to be a good market for years.

The steamer Santa Rita, with 1,800,000 gals. crude oil, was sent to San Jose de Guatemala in March, 1907, thus opening up a new market for the article. This cargo has been followed by others.

In December, 1907, a new foreign field was entered in the clearance for Hongkong of the British steamer Housatonic with 1,230,000 gals. oil. The Dakotah followed in the same month with 1,600,000 gals.

In March, 1908, the Alaskan market was entered, the steamer W. S. Porter taking a cargo of 53,000 bbls. oil to Juneau, A. T.

Though California oil cargoes had been sent to Chile as early as October, 1905, the first cargo to Peru did not leave here until September 4, 1909, when the British steamer El Lobo took down 1,516,000 gals, fuel oil.

In this connection is a coincidence worthy of mention. This same steamer El Lobo arrived at San Francisco on February 24, 1911, with 30,000 bbls. crude oil from Peru, and went back with a similar cargo.

Oregon has been drawing supplies of earth oil from California for several years.

It will thus be seen that about every section bordering on the Pacific Ocean has been reached and measurably covered by those engaged in the oil industry of California.

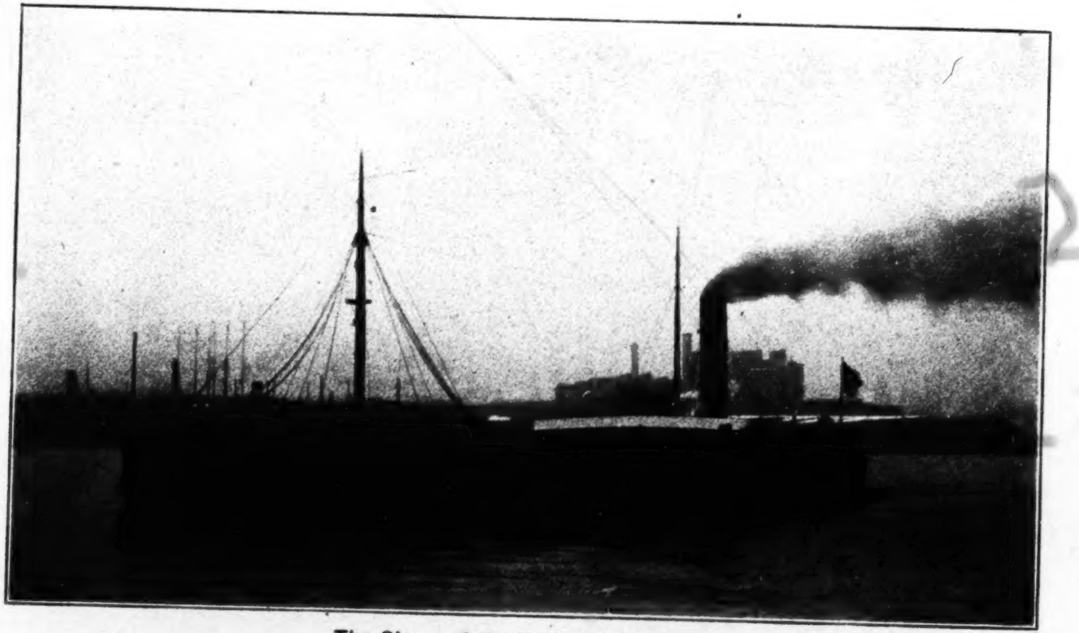
The only omitted sections are Mexico, Australia, and some of the Pacific islands. It is not known that any serious attempt has been made to enter these markets.

There has been no abandonment of any one of the countries where a foothold has been made. On the contrary, instead of confining the shipments to the first port visited on an errand of this kind, the service has been extended to several other ports in the same country.

While of late the shipments to some of these ports have not been as large as in some previous years, the export trade in California earth oil in the aggregate has been steadily increasing, and there is good reason to believe that it will continue to expand.

This is an entirely new field for steamers on this side of the world, and a dozen or more have been employed and are still covering the various routes.

During the first eight months of 1911, the oil shipments by water from California were in excess of any previous



The Oleum of the Union Oil Company.

twelve months. In the same interval, about thirty different steamers have been employed in this trade, and many of them regularly. These steamers are fitted with tanks for carrying oil in bulk. The oil is pumped both in and out, thus giving quick despatch in loading and unloading. Two large new steamers were recently added to the California oil fleet.

Several pipe lines bring the oil directly from the wells to tide water. Large refining plants have been erected, and the industry is already one of great and growing importance.

The Standard Oil Company opened its first agency in San Francisco for the sale of its products in 1878, the office force at that time consisting of a manager, clerk, and office boy. The company is now erecting a large steel building in the heart of the city for general office purposes and to house its 400 employes. Today, in addition to its large export trade by water to distant markets, it is doing a large business with all the Pacific States and has on its pay rolls on the coast 4,800 employes.

The opening of the oil industry in California has been of great benefit from every standpoint.

Steamers in General Trade.

Within the past two years, the use of steamers has been still further extended between distant ports and San Francisco in the transportation of general merchandise back and forth.

Leading San Francisco importers have been transferring their trade from ships to steamers to an extent that has become noticeable. It is believed that this movement may become still more general.

The innovation appears to have been made by Balfour, Guthrie & Co., and to have been followed by Henry Lund, Parrott & Co., and others.

Several of these steamers were on their way to this port from Europe in January, 1911.

Some of those that arrived in 1910 were loaded back with canned fruit, vegetables and salmon, as well as grain.

So far, these arrangements have been satisfactory to all parties concerned. Importers on both sides of the world are receiving their consignments much more promptly, and time is an important consideration in business affairs.

Steamers in Whale Trade.

When it was proposed to hunt whales with steamers, the scheme was regarded as little less than foolish, on the ground that steamers would frighten the whales, and so make their capture more difficult.

Despite these pessimistic views, the enterprise was undertaken. New Bedford furnished one steamer for the service and San Francisco supplied six.

This new departure in the whaling business began many years ago. Since then the number of steamers engaged has been considerably increased, but San Francisco has always been in the lead in furnishing steamers.

Instead of half a dozen steamers, the number employed in some of the subsequent years has been as high as 16.

The use of steamers in this industry has been a success from the start, and the wonder is that they were not introduced many years earlier, before the hunt for whales became less interesting and less profitable.

San Francisco is justly credited with inaugurating the movement.

Sixty years ago, when cruising for whales in the Arctic was a prominent industry, and when it meant much for those engaged in it, the trade was controlled by parties in New Bedford, Mass., and a cruise for whales meant an absence from that port of about three years.

Then the major part of the fleet made the Hawaiian

Islands their winter quarters. In some winters over one hundred whalers pulled up there.

The catch of several vessels was consolidated and put aboard such vessels as had been ordered back to New Bedford. The remainder of the fleet was fitted out at the islands and took an early start in the spring for the Arctic or the South Seas.

Occasionally some of these vessels would come into this port for a supply of fresh water, which they obtained from Sausalito. Such visits were made long before the gold discoveries were known. These vessels were probably the first of the American type to sail through the Golden Gate.

These exceptional visits were made long after the port became better known and before there was any idea of giving up winter quarters at the islands.

Three events have contributed materially to the decadence of the whaling industry. The first of these was the discovery of earth oil in large quantity in the Atlantic States in 1856.

The second event was the almost total destruction of the Arctic fleet by the rebel steamers Alabama and Shenandoah, fitted out at British ports.

The third was an almost total loss in a subsequent year of the Arctic fleet by being caught in ice floes and crushed.

The owners of these vessels never received any remuneration directly or indirectly for the damage inflicted by the first of those events. The country at large, however, has been materially benefited by the discovery of earth oil. That was a providential event, that happened just at the right time.

Some years after the fleet had been burned by rebel cruisers from English ports, England settled claims growing out of that high-handed outrage on innocent victims, by an award of $15,000,000.

Some compensation was obtained from underwriters for vessels destroyed by the ice jam.

The third and last event was hardly needed to destroy the old-time enthusiasm in this industry. That enthusiasm was already on its ebb tide.

As early as 1860, San Francisco began to attract whalers to come here to winter and obtain outfits for a new cruise.

In that year, 14 whalers of 3,300 tons arrived here for that purpose. In the following three years, these arrivals numbered 15, 9 and 14, respectively.

A noted increase in these arrivals took place in 1864, when the number was 34 of 11,000 tons register, the largest fleet that had reported here up to that time. That was the last year of the Civil War, and the owners of the vessels were anxious to get them under American protection.

The arrivals in the following year were 32. This was in 1865. The fleet in the Arctic numbered about 100 vessels, of which 90 were under the American flag. Of this number, 28 were destroyed, 26 of them being burned and the other 2 by other casualties. Of the remainder, 20 arrived at San Francisco in the last half of that year, and 48 went into Honolulu.

The 26 that arrived here between August 25th and November 11, 1866, brought 15,983 bbls. oil and 220,600 lbs. bone, while those arriving in 1865 had 11,320 bbls. oil and 114,000 lbs. bone.

Eight of this fleet were owned and fitted out at this port.

There was a notable decrease in the Arctic whaling fleet in the next three years. In 1869, only two small whalers reported at San Francisco, but in the very next year there were 14, and two years later there were 28.

In the next four years, the decimating process was again in force, with the result that only 7 whalers reported in San Francisco in 1876.

Immediately following that year, interest was renewed.

Headquarters for wintering had been changed from Honolulu to San Francisco. Parties here became interested.

The result was the formation of the Pacific Steam Whaling Company, the infusion of new capital, the building of steamers for the service, the creation of the corporation known as the Arctic Oil Works for the refining of the oil, and later a factory for preparing the bone in commercial form ready for use.

Under this stimulus, there were from 20 to 22 arrivals in each of the following four years.

Starting with 26 arrivals in 1881, the number was steadily increased, with few exceptions, until it reached 50, in 1893.

That was the largest number of whalers that ever reported at San Francisco in a single season.

For some years previous there had been little inducement to secure large quantities of oil, owing to the low prices offering.

From 2,800 bbls. oil brought by the fleet to this market in 1876, the quantity had increased, irregularly of course, until 1887, when it reached 32,884 bbls., which was the joint catch of the 41 vessels that arrived that year.

Though 42 vessels arrived in the year following, the combined oil cargoes amounted to only 16,000 bbls.

In the next four years the annual average was a little under 13,000 bbls.

Only once since 1892 has the total exceeded 9,000 bbls. That was in 1902, when 16 whalers sent down 10,976 bbls. This total includes consignments received by trading vessels.

For the past eighteen years, the total deliveries of oil from the Arctic fleet have been only 89,000, or less than an average of 5,000 bbls. per annum.

During the greater part of this long interval, the principal interest attending the hunt for whales has been for the bone, which for the most of the time has brought good prices, reaching in some years over $5 per lb.

From 8,800 lbs. bone brought by the 7 vessels at San Francisco, in 1876, the quantity increased to 603,400 lbs. in 1887, the year when the oil deliveries were also the heaviest.

The largest quantity since received was 416,650 lbs. in 1902.

In only two years since 1900 has the quantity delivered here exceeded 100,000 lbs., while the average has been about 62,000 lbs. per annum.

Another new feature introduced in this industry by Californians was the practice of having some of the fleet winter in the Arctic. This custom has been followed to a greater or less extent since 1890. In 1894, thirteen of the fleet wintered there, and in the following year, fifteen, of which twelve were steamers, making sixteen steamers in the fleet that year.

Tonnage in the Cod Fisheries.

Prior to 1865, all the codfish consumed on this coast was taken from Atlantic waters. Of course these deliveries up to that time were entirely by the water route, either by steamers via the Isthmus or by sailing vessels via Cape Horn.

Consignments by steamer generally came through in good order, despite the hot weather encountered on a portion of the voyage. Some of the consignments by sailing vessels were also delivered in good order. Others attained a high rank for undesirableness before they reached consumers.

Up to that time no effort had been made to find out whether there were any codfish in the Pacific Ocean.

That discovery, like many others before and since, was left to chance.

The old Eastern built brig Timandra had been sent from San Francisco to the Amoor river with an assorted cargo. On her way back, in ballast, she was becalmed off the Island of Saghalien. While waiting for a breeze, the crew threw lines from the deck and were surprised to haul in quite a lot of codfish.

Freeman, Smith & Co. of this city were in the Amoor river trade at that time.

The bringing of this little consignment of fresh codfish to San Francisco created much interest in what has since proved to be an important industry.

The brig Timandra and other small craft were sent to these new-found fishing grounds in 1865, and seven cargoes of Alaska codfish came to hand in 1865, aggregating 469,400 fish, equal to 587 tons dried fish.

In the very next year, 18 small vessels were fitted out for a codfishing cruise to the north. Most of these went as far north as the Ochotsk Sea.

One of the fleet went out under orders to take her cargo to Australia. Another returned in ballast. . A third one never came back.

The fifteen cargoes received that year contained 724,000 fish, equal to 902 tons dried.

Since then these fishing grounds off the coast of Alaska and in the Bering and Ochotsk Seas have been annually visited by a fleet of small vessels varying in number from about a half dozen to upwards of a score, or that number in the equivalent of arrivals.

By the establishment of fishing stations on Choumagin Island and Sand Point, the fishing seasons have been greatly extended. In this way, cargoes have been made up in advance for the schooners and vessels of still larger class sent up from San Francisco to bring them down.

In 1869, the number of fish returned was in excess of

1,000,000, and in the following year the total was 1,265,500.

In the following seven years, the catch brought to San Francisco was much smaller, the smallest total for that interval being 381,000.

Since 1887, the number of fish brought to San Francisco has almost invariably exceeded 1,000,000, and in 1883 it was 1,750,000.

T. W. McCollam was the first man to take up this new line of business. Later he was followed by Mr. Lynde, of Lynde & Hough, and then by Nicholas Bichard. These gentlemen retained their interests until called by death.

The business then went under the control of the Union Fish Company and the Alaska Codfish Company.

The business has been brought to a high standard and enjoys a wide market.

Tonnage in the Salmon Fisheries.

Oregon began canning salmon in 1866, but it was some years later before the industry called into use deep water tonnage, except for export purposes.

This was also largely the condition with the same industry on Puget Sound, in British Columbia and in California.

The Alaska salmon fisheries were at first exploited by San Francisco capital, as represented in the Alaska Packers Association.

These fisheries being so far removed from the base of supplies, it was necessary to buy, build or charter deep water tonnage in large supply to transport men and materials for catching and canning the fish and to bring to San Francisco the results of the season's work and the men sent to perform it.

In this task upwards of forty vessels have been engaged for several years. Many of these are ships, barks and steamers of good size, so that a considerable amount of capital is now invested in tonnage for the salmon fisheries.

From Forty-nine to Eighty-six.

That was an immense fleet which entered the Golden Gate at San Francisco between January 1, 1849, and December 31, 1886, a period of thirty-eight years.

The number of these merchant marine arrivals in that interval and the registered tonnage represented by the same was compiled by the writer in 1887, when it was much easier to get at the facts than it is now, because of the diminished sources of information in these matters, incident to the loss of records from various causes.

For the first three years of this period the destruction of the local customs house by fire swept into oblivion all the Government papers and books stored therein.

From various other sources here and at the East an approximate idea of the extent and sources of the arrivals for those three years has been obtained.

The customs district of San Francisco was not established until September, 1850, and it was not until 1856 that the Government undertook to compile commercial facts by customs districts.

From 1849 to 1886, steamer lines were in operation with more or less regularity between San Francisco and Panama, Nicaragua, British Columbia, Mexico, Hawaiian Islands, Australasia, China and Japan and the Society Islands.

The line between Nicaragua and San Francisco was not opened until 1851, and was entirely uncovered between 1858 and 1862, and in 1868 it was for the second time and as a finality abandoned in favor of Panama, where service was commenced in 1849.

Steamer service on the other routes did not commence until 1858, and from that time down to 1885, when connection was made with Tahiti.

From a single steamer line representing 14 arrivals and 13,500 tons of tonnage, in 1849, there were 260 steamship arrivals from foreign ports in 1886, representing 369,760 tons of tonnage.

The independent line to Honolulu was suspended from 1874 to 1877, and again from 1879 to 1881, so the arrivals on that route up to 1886 covered only 14 years, though the service was inaugurated in 1866. There were also some short time lapses on the Australian route.

A summary of these steamship arrivals from foreign ports at San Francisco from 1849 to 1886, both years inclusive, is herewith annexed:

ROUTE.	PERIOD.	NO.	TONS.
Panama	1849-86	1,279	2,691,413
Nicaragua	1851-68	171	215,643
British Columbia	1858-86	1,432	1,718,960
Mexico	1859-86	294	312,607
Hawaiian Islands	1866-86	160	244,311
Australasia	1871-86	184	395,502
China and Japan	1867-86	477	1,550,463
Society Islands	1885-86	10	6,500
Total		4,007	7,135,399

In 1887, the Pacific Mail Company either owned or controlled 18 iron or steel propellers.

These 18 steamers represented 34,200 tons of tonnage. For the previous two years the company had not added a single steamer to the fleet.

Pending this delay and before proceeding to order additions to the fleet, the company was appealing to Congress for some subsidy or some additional subsidy for carrying the mails, or some rebate on the materials in the construction of new steamers.

What the company did in the way of additions to the fleet subsequent to 1886 is covered elsewhere in this story.

In addition to the steamer arrivals in the foreign trade of San Francisco from 1849 to 1886, there were during the same interval 14,833 sail arrivals in the same trade, representing 9,870,120 tons of registered tonnage.

From 316 of such arrivals in 1849, representing about 120,000 tons of tonnage, the number was irregularly increased until it reached 549 arrivals of 537,764 tons of tonnage in 1886.

The smallest number of arrivals in the interval was 217 of 85,100 tons in 1857, though the smallest amount of tonnage to enter was 80,000 tons in 1855.

The largest number of sail arrivals in the same interval was 671 of 649,100 tons in 1881. The number of such arrivals was the same in 1882, when the tonnage was 638,800 tons.

The numerous arrivals at that time were due to the unusually heavy demand for ships to carry away the surplus of an unprecedented wheat crop.

The sail tonnage arrivals at San Francisco from domestic Atlantic ports from 1849 to 1886 were 4,409, representing 4,903,400 tons of tonnage.

The arrivals from the above sources were the most numerous in the first six years of the period named, due to the rush of gold seekers and the supplies necessary for their subsistence until productive sources in California could be made available.

Statistics of these arrivals in those six years are quite defective for reasons already given. There was not that discrimination between the Pacific and Atlantic in the domestic tonnage movement in those early years as obtained later.

This accounts for the variations in the statistical records supposed to be more or less authoritative.

It is conceded that the sail arrivals from domestic Atlantic ports from 1849 to 1854, both years inclusive, varied from about 200 to 350 per annum, while the tonnage represented by such arrivals varied from 200,000 to 250,000 tons per annum.

In no subsequent year did the arrivals from domestic Atlantic ports exceed 150 or the tonnage represented by the same 160,000 tons.

There was an irregular decrease in the number from 1854 to 1865, when there were 80 arrivals of 85,800 tons.

From this low point, the number was increased to 146 of 161,000 tons in 1869.

The completion of the first through railway between New York and San Francisco in 1868 had the effect of diverting much freight intended for the Pacific Coast from the Cape Horn route.

In 1871, there were only 58 arrivals of 68,200 tons of tonnage at this port from New York and other Eastern ports.

In 1875 and for the following two years, there was a better showing made on this route, the arrivals for those years varying from 81 to 88 and the tonnage from 116,200 tons to 150,500 tons.

In 1886, these arrivals numbered only 29 of 52,500 tons. How the Cape Horn route for reaching San Francisco by sail was subsequently virtually abandoned is told elsewhere in this story.

The number of steamer and sail arrivals at San Francisco from domestic Pacific ports from 1849 to 1886 was 79,874, representing 19,350,500 tons of tonnage.

This department of trade has had few drawbacks from the start. The business shows a steady development from year to year.

From about 200 steam and sail arrivals in 1849, the number was 3,252 in 1886, representing over one million tons of tonnage. That was the fifth year in succession that the million mark in volume of tonnage had been passed.

In the North Pacific fisheries, the arrivals from 1852 to 1886 numbered 960 of 220,300 tons.

Most if not all of this tonnage was to the credit of whalers. Some whalers visited this coast before 1852, and even before 1849, but there is no accurate record of such arrivals.

The steamer and sail arrivals at San Francisco from all ocean sources from 1849 to 1886 approximate 104,083 of 41,489,100 tons of tonnage.

The sources of the sail tonnage included in these totals for the 38 years ending with 1886 were as follows:

FROM.	ARRIVALS.	TONS.
Europe	3,356	3,171,511
Australasia	2,066	2,040,799
China and Hongkong	1,194	962,805
Japan	252	186,279
East Indies	521	389,285
British Columbia	1,252	992,703
South America	1,255	628,682
Central America	381	113,375
Mexico	1,339	267,495
Hawaiian Islands	1,789	585,997
Other Pacific Islands	866	166,227
Miscellaneous	562	365,472
In Foreign Trade, sail	14,833	9,870,630
In Foreign Trade, steam	4,007	7,135,700
Domestic Atlantic Ports	4,409	4,903,445
Domestic Pacific Ports	79,874	19,350,500
Fisheries	960	229,349
Grand Total	104,083	41,489,615

Totals from domestic ports and fisheries represent sail and steam tonnage.

The foregoing statistics were compiled by the writer in 1887, and were made public in the same year.

The Man on the Quarter-deck.

Of the scores of men in service on the great ocean steamers of the world, two stand out prominently because of the responsible positions assigned them.

One of these is the man on the quarter-deck, the captain

or commander of the vessel. On account of his position, this man is necessarily in the limelight.

The other man is the engineer, whose duties necessarily keep him much of the time on the voyage from the public view.

Both of these positions appear to be equally important, though the captain, of course, is supreme in authority, but it is the engineer that makes the steamer go from one port to another.

It is the harmonious combination of the services of these two men that ensures safe trips across the seas to thousands of people on every day in the year.

Because he is below and much of the time beyond the view of the passengers, the engineer does not get as many compliments as the captain, but he is entitled to much more praise than he gets.

The captain of an ocean steamer, with an experience of 30, 20 or even 10 years, is an object of interest. Of him when at sea, it may be said, "he is monarch of all he surveys."

His pathway is the sea, and fire and water are his servants. If possible, he must not allow either to get the mastery over him.

The law of his mouth from the quarter-deck governs all on board in storm and calm. With valuable property and precious lives under his control, he must have complete authority as compensation for his responsibility.

Every man who walks the quarter-deck may not be equal to every emergency, but the quarrel must be made with those who gave him the command.

The qualities of an efficient captain are varied and difficult to find in the same person. Two elements are indispensable. The captain of an ocean steamer must be a gentleman and he must thoroughly understand his profession.

The owners of ocean steamers in the California trade have been generally fortunate in the selection of commanders.

Civil service has been well illustrated in this department. Many of those thought good enough to be first, second and third officers have been advanced as vacancies occurred to a full command.

Bright young men from the Navy have been given a show, especially in the Pacific Mail Company's service. Some of these, however, have not done as well as some selections from the masters of merchant ships—men who worked themselves up from the lowest place before the mast.

The best material for seamen is not confined to the Navy, but this is no reflection on Annapolis, any more than in the Civil War the best generals were not always from West Point.

Had these men been favored with the education and discipline of these institutions they would undoubtedly have been still better equipped for service on the quarter-deck or on the tented field.

Schools do not supply brains, but simply develop and direct what already exists.

All of the commanders of ocean steamers entering this port in the pioneer years of California's history have long since passed away, and whatever of praise or censure now rendered can neither help nor harm them.

Dr. A. B. Stout, surgeon on the steamer California—the first to enter this port, in 1849—survived all other officers on that trip by many years, and yet he died a long time ago.

The Oregon was the second steamer to come from Panama, and Thomas Huntington, in 1887, was the only one of the general officers then living. Mr. Huntington was on the seas for many years both in the Atlantic and Pacific.

All the other officers on the Oregon on her first trip, down to the boatswain, subsequently rose to be commanders.

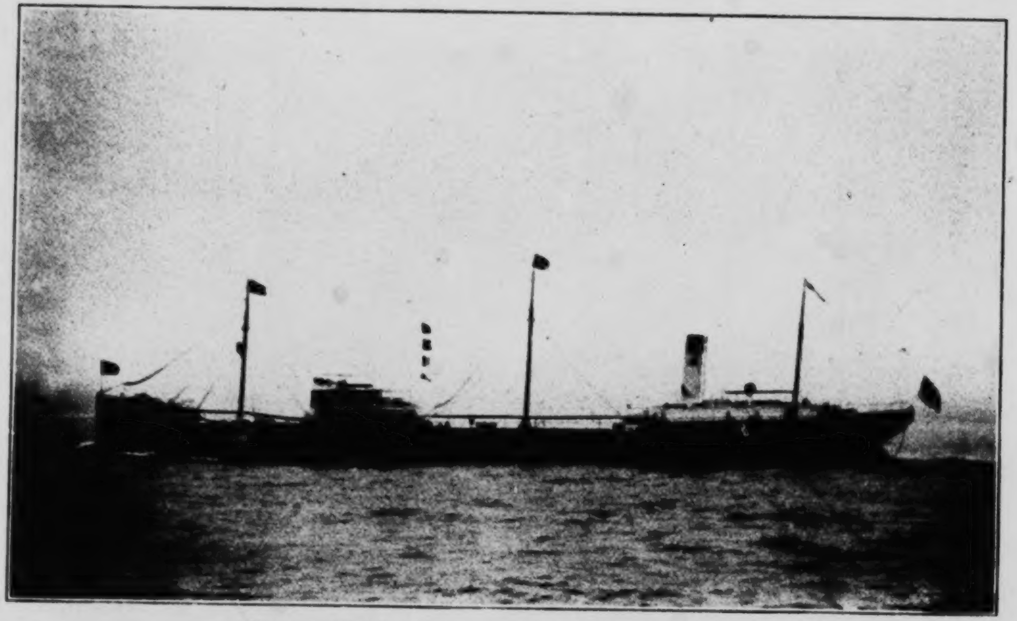
E. S. Farnsworth was the boatswain on that trip. He had previously commanded a sailing vessel. He became second officer in 1855, and was afterwards first officer of the steamer John L. Stephens. Subsequently he was given command of the steamer Orizaba and other steamers in the Panama trade. He was in command of the Sacramento when it was wrecked in 1872, and died in 1882.

Richard L. Whiting and W. L. Dall were first and second officers on the Oregon. In 1851, Mr. Knight, local agent of the Pacific Mail, tendered these gentlemen positions as commanders of the steamers California and Columbia, the former to take the California as soon as there was a vacancy, then expected to occur in about sixty days, or he could take the Columbia on the Portland route and so enter the service immediately.

As the captains on the Panama steamers at that time received a salary of $300 per month and 2½ per cent primage on all the treasure carried, Whiting concluded to wait for the vacancy, while Dall took the Columbia, with the privilege of carrying 40 tons produce from Oregon to San Francisco free of charge in lieu of primage.

These men were the selections of Captain Pearson, then in command of the California, but who had been ordered by the company to bring out the new steamer Golden Gate to San Francisco from New York. This steamer arrived here in 1851, and continued in the Panama trade until burned in 1862.

A good story is told of these three early captains, by Captain Pearson. At that time there were only four American steamships running out of New York, the Washington and Herman to Bremen, and the Northerner and Southerner to Charleston, all of which subsequently came to this coast. Dall and Whiting had been masters of sailing vessels. Pear-



The W. F. Herrin of the Associated Oil Company

son asked Whiting what his experience had been in steam navigation, and the short, stocky man replied, "The same that you have yourself, sir—going on the ferry to Hoboken." Pearson did not know whether to laugh or get angry, when in stepped Dall, to whom a similar question was propounded, and he replied: "None at all; but I'm engaged to be married to a lady in Hoboken, and I hope to learn something in traveling back and forth on the ferry."

Dall made a good record for himself on the Columbia, 700 tons register. On the round trip to Oregon he had to cross eight bars. On reaching one of these, he would call up his pilot, lash him to the bridge, and then send his little steamer through the surf whether it were fair or foul weather.

Frank Connor was second officer on the Goliah in 1850. He was tall and wiry, and very ordinary looking as a young man, but he aged out handsomely with his erect stature and snowy white hair and beard.

Captain Blethen had a long and varied experience. He made 80 voyages across the Atlantic, 300 to and from San Juan, 22 to Australia and 4 to Chagres. He was on the war steamers Peerless and Daniel Webster, in which he transported over 10,000 wounded soldiers.

Ned Wakeman was a diamond in the rough. He had command of several steamers. He ran the New World out of New York, when she was supposed to be in charge of the sheriff, and some years later allowed the John L. Stephens, of which he was captain, to be captured by Frank Dana and others at San Blas.

Jacob S. Bogart was one of the early captains in the Coast service, and chief officer on the Golden Gate on her first trip. His death was singular. At the time he was piloting a ship into port and leaning against the capstan, when the captain called out for instructions, but there was no answer. Death had previously called.

Commodore Watkins was in command of the Golden Age in 1855, and had as a passenger Mr. Aspinwall, president of the Pacific Mail. As the steamer neared Tincaro Island, Mr. Aspinwall asked Watkins if there was no passage inside of the island. Watkins said there was, but he had always taken the safe side and gone to the west. "How much time would you save by going to the east side?" "Three or four hours." "Take it," said Aspinwall, and an hour later the Golden Age was fast on the reef, where she remained for the best part of three days. Mr. Aspinwall assumed all the blame for that event.

Commodore Watkins was a notable figure on land or sea. He represented good weight, fine looks, dignity and courtesy. From the incident on the Golden Age to the day of his death on board the Colorado at Nagasaki, he never met with a mishap to his ship or lost a man.

Captain Nicholson, whose son was a paying teller in the Bank of California in the seventies, was in command of the British steamer Unicorn, under charter to the Pacific Mail.

W. F. Lapidge was in the Cunard line when only 18 years of age. Mr. Aspinwall met him on the Niagara while he was on duty and attempted to converse with him, when Lapidge replied, "It is not customary for officers to talk to passengers while on watch." The remark pleased Aspinwall, and he subsequently sought Lapidge out and put him in the Pacific Mail. Lapidge was one of the smallest in stature and lightest in weight that one ever sees on an ocean steamer, but he was an efficient officer.

Allan McLane came out to the Coast as captain of the propeller Fremont in 1852. He subsequently became president of the Pacific Mail and was in office and a passenger on the Colorado at the inauguration of steam service with the Orient. The Fremont, built in 1850, has outlived its commander at that time.

J. M. Lachlan commanded the steamer Alaska on her voyage to China from New York. Up to that time she was the largest vessel that had ever gone through the Red Sea. Lachlan designed the iron steamers Alameda and Mariposa, the greyhounds of the Pacific when they entered the service.

C. F. Hewett of the iron collier San Pedro was first officer of the Yankee Blade when wrecked in 1854.

R. H. Horner was in command of the Uncle Sam in 1854, and died in 1883.

Hudson and Comstock were the sons of Commodores bearing the same names, but did not seem to inherit any of the seamanship traits of their fathers. Hudson lost the Golden Gate and Comstock the Golden City.

Hudson was selected to take the America from New York to the Amoor river, Russian Asia, in 1854. Arriving at Rio to coal, two British men-of-war followed her in to watch her. Hudson was annoyed at this and determined to run out as soon as the wind favored, knowing he could not be fired upon in a neutral port. One night a terrible wind came up, and the next morning Hudson and the America were missing. He cleared for Valparaiso, intending to coal there, but he did not. The Britishers followed in his wake, but did not overtake him, and lost track of him until he had got such a start that further pursuit was fruitless.

Bob Waterman brought out the Northerner, though Captain Randall, the owner, was also on board. When at Valparaiso someone asked Bob what the ship was doing with two captains, Bob humorously replied, pointing to Randall, "He cleans the knives and I navigate the ship."

Joseph Sutton was on the St. Louis in 1860 or 1861, and on the Sacramento in 1865, when Colfax, Bross, Richardson and Sam Bowles returned to the East from San Francisco. Connection was made at Aspinwall with the Henry Chauncey, and the through trip was made inside of 22 days. The

Chauncey then made her famous passage of 2,018 nautical miles in 6 days 3 hours and 40 minutes.

Charles H. Baldwin was a captain in the Nicaraguan line, and afterwards became a partner with C. Adolphe Low in the tea business in San Francisco.

Jeff Maury and S. P. Griffin were from the United States Navy, and both became commodores in the Pacific Mail service. Maury's uncle issued charts that have always been regarded as indispensable to navigation.

Griffin died at Aspinwall on July 4, 1887. He wore many medals of honor. The one he most highly prized was a decoration conferred by Queen Victoria in recognition of his services on the Grinnell expedition, which secured the first traces of the lost explorer, Sir John Franklin.

A. V. H. Leroy was in the Pacific Mail service in 1851 and for years afterwards.

Frank Baby was first officer on the Republic in 1851, and was captain of the Constitution in 1854. He was a favorite of Allan McLane, and became wealthy by marriage. He was at one time agent of the company in San Francisco.

John Bermingham is one of the old time steamship men. When in charge of the Republic in Mexico, he dove down under her without armor, sixteen feet, to stop a leak, and was given a watch and vote of thanks for the service. He has since performed many other still more meritorious acts without the gift of a watch or even a vote of thanks. Captain Bermingham has for some years held the important position of U. S. Supervising Inspector of Steam Vessels at San Francisco.

Captain Seabury entered the service of the Pacific Mail in 1868 and retired as commodore in 1908, having given forty years of his life to the company.

Captain Daniel Friele was connected with the Pacific

Mail from 1868 to 1911, voluntarily retiring in the latter year as commodore and on a pension.

Captain Russell began his service with the Pacific Mail in 1868, and is still in active command, and of late on the Panama route.

Freight Earnings Inward.

In the early sixties it was the custom of the writer to secure the amount of freight money paid on inward cargoes from domestic Atlantic and foreign ports by steamers and sail vessels. This began in 1864 and was kept up for several years.

The total amount of such freight money in 1864 was $8,109,600, of which $3,747,700 was paid on cargoes from domestic Atlantic ports, $2,380,100 on freight by the Panama steamers, and $1,981,800 on freight received by sail vessels in the foreign trade. On cargoes from domestic ports, the freight was paid in paper money of variable value, while from foreign ports it was in gold coin of standard value.

In the following three years this freight money amounted to an average of $6,800,000 per annum and in the next two years it was $8,064,800 and $8,949,100.

No reports from the Panama steamers were available after 1869. In 1870, freight money on inward cargoes under sail amounted to $3,484,000, and in 1871 it was $3,336,400.

The tons of freight received from domestic Atlantic ports under sail from 1866 to 1871, inclusive, show an aggregate of 1,107,900, the largest total for any one year being 273,600 tons in 1869.

Freight Earnings Outward.

Earnings of ships employed in the grain export trade of California have figured prominently in the outbound fleet from this port, especially in the years of large wheat crops in the State, and an active European demand for cereals.

Some illustrations of these earnings will be of interest in this connection, as compiled at the time by the writer.

In the harvest year of 1893-94, when 179 vessels were cleared, representing 334,800 tons of registered tonnage, these earnings were $3,485,800. In the following year, 160 vessels of 293,900 tons earned $3,009,600, and the year following that 208 vessels of 380,900 tons earned $4,181,500.

In those three harvest years, grain ships from this port earned $10,676,900. For the last two of those years the total was $7,191,100, of which American vessels received $425,100 and foreign vessels the remainder. The British ships took $5,994,600 of that remainder.

The wheat crops in those three years were much smaller than usual, the total for the three seasons being less than 20,000,000 centals. The rates paid for transportation were also correspondingly light.

High and Low Grain Charters.

There was not much wheat exported from San Francisco until 1860.

For the calendar year of 1868, there were 193 grain charters reported and in the following calendar year, 240. In the last quarter of 1869, the demand was light and the rates to Europe declined from 65s to 48s as extremes.

For the decade ending with 1871, reporters were referred to Isaac Friedlander for rates for grain charters. During that interval Mr. Friedlander practically controlled the grain and tonnage markets, though not a wheat shipper himself.

The wheat export trade of the port was largely in the hands of foreign firms, who received the orders from the other side, and Mr. Friendlander supplied both wheat and ship in the execution of these orders.

In the early seventies, the wheat producers and would-be shippers grew restless over this situation. They did not think they were getting a fair shake, and what was known as the granger movement was the outcome of that condition of affairs.

Farmers formed themselves into groups, or granges, and undertook the experiment of chartering their own ships and loading the same with their own wheat, sent direct from the ranches to tidewater.

In this undertaking they had the assistance of E. E. Morgan's Sons, of New York, a shipping firm of much repute on the Atlantic side, and with strong and extensive European connections.

The firm sent to San Francisco as its representative, Mr. Walcott, a bright young man of much ability and energy, and with an almost unlimited letter of credit.

From the very start, Mr. Walcott realized that he had a well seasoned veteran to deal with in securing tonnage for the farmers that wanted to load their own wheat.

To do this successfully he knew it was necessary to find out every source of tonnage on the way to the Coast and the location of every ship owned in Europe, to the end of diverting as many of these as possible to the Pacific Coast at an early date.

Having ascertained these facts, the only remaining thing to do was to outbid all rivals for tonnage suitable for wheat transportation.

Mr. Friedlander soon discovered that a battle for ships had commenced, and that it was likely to be one of considerable magnitude.

He was quite right in his premises. There had never been anything like it before at this port, and there has never been anything like it since, nor is there likely to be a repetition of the same in the future.

Up to that time, 60s had been considered a high average rate for first-class ships to take wheat cargoes hence to Europe.

The harvest year of 1872-73 had been chosen for the inauguration of the new movement. The wheat crop in California had been light and as a result only 43 vessels were cleared in 1871-2, carrying 1,353,200 ctls. wheat, all for Europe, and every cargo but one for Great Britain.

The writer has a list of every charter made for grain loading at San Francisco for the fiscal year of 1872-73. There were 339 cargoes cleared in that harvest year, against 43 in the previous year.

The first vessel to clear in that harvest year was the Favorita, on July 3rd. She went direct to Liverpool under a charter of 60s, with 34,676 ctls. wheat, valued at $65,000. This ship, as well as some others that followed her in that month, had some of the 1871 crop as well as the 1872 crop.

The three ships that followed the Favorita in July went direct to Liverpool at 65s, while the next two for the same destination went out under charters of 70s and 72s 6d.

The Margaret Knight was the first vessel in that year to go out under a charter of £4. This was a small vessel, carrying only 12,200 ctls. wheat. She went direct to Liverpool at 83s 6d.

There was a small shipment in the same month to the same destination by the steamer Sacramento via Panama at 90s. Five other Panama steamers in the same year took small consignments of wheat at 90s to 95s.

With few exceptions all the vessels clearing between August 15th and September 30th, numbering 69, had been secured and loaded under charters of 80s and upwards. Only 16 of that number went under 80s, and the charters for these ranged from 60s to 75s.

Three others of the 69 cleared in that interval went to Cork for orders to any port in Great Britain at 100s, 105s, and 110s, respectively.

The 33 vessels clearing in October showed a still larger number under charter of 100s and upwards. A little more than one-half of the number for that month went out under charters varying from 100s to 116s. There were three at the inside figure and one at the latter figure. Eight of the number received 110s to 116s.

The vessel receiving the highest rate was the Henri Joseph, with 9,250 ctls for Cork for orders. The one receiving the next highest rate was the Wm. Melhuish for Southampton with 23,000 ctls. The two receiving 113s were the Reveil for Cork, with 14,500 ctls., and the Angenor for Liverpool, with 45,300 ctls. Six others received 110s to 112s 6d. One vessel cleared in the same month at 55s, but that was the only one under 60s.

Thirteen of the 42 cleared in November received 100s to 115s. The one at the last named figure was the R. C. Wylie for Cork, with 14,000 ctls.

The Loyal Sam came into port under 70s charter, but left November 7th for Cork with 15,000 ctls. under a recharter at 116s.

Five others in November went out under charters of 60s to 77s 6d.

There were 35 cargoes cleared in December, and 13 went out under charters of 100s to 107s 6d.

The clearings for January, 1873, were 51, the largest number in the harvest year, including 5 at 100s and upwards, and 25 at 60s to 77s 6d.

The clearings for February were 20 less than for January, and included only 3 at 100s and over, but most of the others were at 80s and upwards.

There were 29 clearings in March, most of them at 80s to 90s, though including 7 at 66s to 77s 6d.

In the last quarter of 1872-73 the clearings were 43, of which 23 were at 80s to 90s. The one at 90s was to receive

100s if ordered to the continent. Three others chartered under 80s were to have 82s 6d to 84s if ordered to the continent to discharge cargo.

The year 1872-73 has gone into history as showing the highest average rates for grain charters out of San Francisco. The average for that year was 85s. It was a year of fortune and misfortune, the former being the inheritance of shipowners and the latter falling to those handling the cargoes.

The losses for that year fell most heavily upon E. E. Morgan's Sons and the farmers who thought they could dispense with all middle men, whether experienced or inexperienced.

It took two years to get these high freight notions out of the heads of ship owners, which of course worked a hardship on those who handled cargoes in that interval.

The highest rates in those two years were 105s in 1873-4 and 91s 6d in 1874-5, though there were some vessels in 1875-6 at 92s.

In 1879-80, the extreme rate was 70s and the business was restored to normal conditions.

The unprecedented wheat crop in the State in 1880 sent freights up again to 84s in the fall of that year, and 90s in the following summer. The lowest figures for those years were 50s and 40s, respectively.

From 90s as an extreme rate in 1881, there was a steady decline for the next six years under lessened wheat crops and lower prices in Europe.

In 1887-88 the range was 35s 9d to 18s 9d, and the average 27s 5d.

Another extreme in grain freights out of this port of an entirely different character and from entirely different reasons, occurred many years afterwards.

Of course one of these elements of weakness was due to the steady and in some years radical decrease in the wheat crops of the State. The increase in the barley crops neutralized the decline to some extent.

Another element was the superabundance of idle tonnage in the port, owing to some miscalculations as to the needed supply or to a partial failure of the crop.

The most important as well as the most permanent cause for the low rates in those later years was due to the French subsidies awarded to vessels built in French ports. These subsidies were based on the miles covered, without regard to cargo or the direction sailed.

The effect of this element culminated in 1903-4 when the rates for carrying wheat hence to Europe fell from 22s 6d to 10s 6d. There were 88 vessels cleared with grain that year, of which 45 were British and 36 French. So long as there was a French disengaged vessel in port even the British ships had no chance for a charter.

Vessels For Flour and Grain.

For many years before the grain crops of California began to yield a surplus for export, there was a large and increasing demand for tonnage.

Up to the harvest year of 1866-67, the quantity of wheat exported for the nine previous years was less than 6,000,000 ctls., and yet in three of those years the exports were in excess of 1,000,000 ctls. per annum.

The first wheat crop of any magnitude was harvested in the summer of 1866, and the engagements for flour and wheat for the four calendar years of 1868 to 1871 were 670, representing 554,800 tons of registered tonnage.

There was a poor crop in 1871, but a bumper one in 1872, double the quantity of any previous year.

From July 1, 1872, to July 1, 1888, a period of 16 years, 4,696 vessels of 6,001,400 tons of registered tonnage were cleared from this port with flour and grain, exclusive of shipments by regular passenger steam lines. The combined fleet for those years embraced 1,421 American vessels of 2,183,900 tons, 2,864 British vessels of 3,438,900 tons, and 411 of other foreign vessels of 378,600 tons.

The largest number cleared in any one of those sixteen harvest years was 559, of which 149 were American, 345 British, and 65 other foreign flags.

To load and clear this number of vessels in a single year meant lively work for those participating in the movement. There had to be over 10 vessels cleared every week and over 46 every month.

The other foreign flags represented in the grain fleet in those sixteen years were the German, French, Russian, Dutch, Italian, Norwegian, Swedish, Austrian, Peruvian, Nicaraguan, Honduras, and Hawaiian.

Had the ship subsidy of France been in operation during that interval, the British flag would not have been so conspicuous and the French flag would have been more prominent.

The occasion for the large movement in 1881-82 was the unprecedented crop of 1880, which amounted to 1,707,500 tons. The crop for 1881 was also large, aggregating 1,359,100 tons.

The last one million ton crop was harvested in 1892. In the last few years the crops have been insufficient for home consumption.

Time Made by Grain Fleet.

There were 160 vessels cleared from San Francisco for Europe in the harvest year of 1894-5. The shortest trip that year was made in 96 days, and the longest required 194 days. The monthly averages were 118 to 149 days. There was a loss of two vessels in that year.

In the following year 208 vessels were cleared. The shortest trip was 101 days, and the longest 170. The monthly average varied from 120 to 145 days.

In 1897-98 there were 210 grain vessels cleared, including 7 loaded at Los Angeles and San Diego. The number for Europe that year was 183. Two trips were made inside of 100 days, one of them being 99 and the other 91. The best trip was by the French bark Margueritte Mollinas. One vessel took 193 days to cover the same distance. The monthly averages were 122 to 147 days.

The grain fleet for 1898-9 was the smallest in many years, consisting of 54 vessels, of which 49 went to Europe. The trips were generally long; the shortest was 109 days and the longest 170 days. The monthly averages were 119 to 152 days. There was only one American ship in the fleet for that year, the A. G. Ropes, which made the run to Liverpool in 124 days.

In 1899-1900 there were 165 grain clearings, including 159 to Europe. A German vessel made the record trip, going out in 97 days, or 9 days less than the next shortest. The longest trip was 179 days. The monthly averages were 113 to 149 days.

There were 153 vessels cleared in the following cereal year, of which 146 went to Europe. The shortest trip was 107 days, and the longest 189 days. The monthly averages were 111 to 127 days. There were more French vessels in the list that year in proportion to the whole number than usual, and three of these were credited with the shortest trips.

In 1902-3 there were 137 vessels cleared, of which 87 went to Europe, including three steamers. The steamers went out in 63 to 101 days. The shortest trip under sail was 104 days and the longest 177 days.

In 1903-4 there were 88 clearings, including 84 to Europe. The shortest trip was 106 days and the longest 202 days.

Perhaps the most remarkable month's sailing record in the California grain fleet occurred in February, 1900. There were 21 sailings in that month. The longest trip was 125 days and the shortest 97 days, while the average of the whole fleet was 113 days.

Ship's Time in Port.

Every day of a ship's time in port beyond the actual or necessary delay needed for discharging and loading is a day lost.

Under normal conditions this operation ought not to consume more than thirty or forty days. This of course depends somewhat upon the character of the cargo taken out or taken on.

So long as California produced good crops of wheat and barley, ship owners found little difficulty in getting prompt dispatch, provided they timed to have their vessels arrive here between August 1st and February, for usually two-thirds of the grain crops raised in this State are distributed in that interval.

Sometimes elements have been injected to upset these calculations.

Speculation in charters and in grain have been the most aggravating causes of disturbance, and San Francisco has had an experience of both sorts. In years when it was impossible to get the grain and the ship together on a parity with the foreign market, delay in loading was inevitable.

As a matter of interest, the writer has made some exhibits of the time ships have spent in port. Two illustrations may be cited.

Of the 208 ships cleared with grain in 1895-6, one was in port 300 days, reckoning from the date of her arrival to the date of her clearance; two were here over 200, but less than 300 days; seven over 100, but under 200; six between

90 and 100 days; sixteen between 80 and 90; twenty-five between 70 and 80; twenty-seven between 60 and 70; fifty-three between 50 and 60; forty-seven between 40 and 50; seventeen between 30 and 40; five between 20 and 30, and two under 20 days.

The other illustration has to do with the 88 grain vessels that cleared in the cereal year of 1903-4.

One of the fleet that year on the day she cleared had a charge of 592 idle days in this port. This was the British ship Merioneth. Thirteen of the fleet were in this port over 100 days, twelve over 80 days, but less than 100; thirty-one from 60 to 79 days, and thirty-two from 59 to 39 days. The British steamer Missouri went out with cargo 23 days from her arrival.

Ballast Ships In and Out.

The tonnage of a port is a good index of the volume of its commerce. Vessels do not come and go from port to port in ballast just for the fun of the thing, unless as under the French subsidy system they earn an income from mileage covered whether with or without cargo.

In proportion to the number of arrivals from distant ports probably no American port reports so few in ballast seeking charters as San Francisco.

When ballast ships go from port to port hunting cargoes, the ship owner has the worst of it, but when a port has received a cargo of needed supplies, and is unable to give the vessel an outward cargo, the reflection is on the port.

When a port offers sufficient inducement for ships to make long voyages in ballast, in order to get cargoes, the port attains high credit among shipowners.

San Francisco has repeatedly been accorded that reputation, and most of the ballast ships to enter the Golden Gate have come in response to good freight rates outward.

A notable instance of this kind occurred in the closing months of 1896, owing to the urgent demand for vessels to load grain here and at ports in Oregon and Washington.

The first of these ballast ships came to hand in July, when two tramp steamers from Japan, chartered prior to arrival at 30s, took out cargoes of grain.

There were no further arrivals of the kind until September, when six ballast ships came into port, followed by twelve more in October and a still larger number in November and December.

During the year 1896, there were 646 arrivals at San Francisco from domestic Atlantic and foreign supply ports, exclusive of regular steam lines, representing 817,900 tons of registered tonnage, an increase of 130,800 tons over 1895.

Most of this increase was ballast tonnage, including many tramp steamers, and most of it was chartered to arrive at rates varying from 25s to 31s 6d.

Ballast tonnage that arrives under promise of an outward cargo is quite different from ballast tonnage that comes seeking.

It was the satisfactory freight rates that led these ballast ships to this port in 1896.

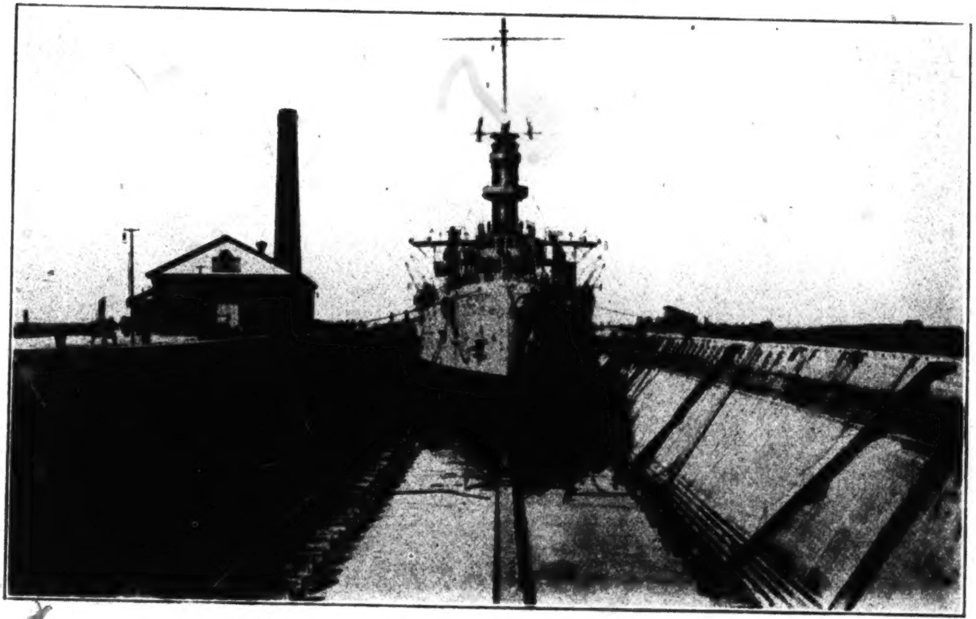
There were 50 wheat charters reported at this port in September, 1896, the largest number for any month in two years.

There were 69 more in October, 56 in November and 26 in December.

Some of these vessels were for Portland and Tacoma loading.

In subsequent years, several ballast ships have arrived, particularly in 1902, but generally under the same conditions as in 1896.

Perhaps one of the most notable instances of vessels leaving San Francisco in ballast because of failure to secure cargo was in 1903.



Union Iron Works Dock and U. S. Cruiser Milwaukee.

That was a very hard year for owners of ships, and in the fall 15 vessels of 28,000 tons of registered tonnage left this port in ballast for Australia to take cargoes of wool and ores to Europe.

As 12 of these ships, registering 22,000 tons, were under the French flag, they received the same subsidy in ballast as they would have been paid if they had left with cargoes. Occasionally a vessel under the French flag has nearly circled the world in ballast.

Sources of Sail Tonnage.

San Francisco has drawn most of its sail tonnage directly or indirectly from domestic Atlantic ports and Europe. Of late years steamers have cut out domestic Atlantic ports.

The sail tonnage from Europe has been one-third larger than from any other source, while the sail tonnage from Australasia has been two-thirds as large as that from Europe.

As a matter of fact, nearly all the sail tonnage in the foreign trade has come from Europe directly or by way of Australasia, South America and the Orient.

Cargoes have been made up in Europe for either one of these markets, and after discharging, have picked up other cargoes before proceeding to San Francisco.

This has been a most fortunate arrangement for California shippers. If no other freight was offering for San Francisco, the vessels could always get a cargo of coal, and that sort of cargo has always been acceptable, because of the limited home supply.

Some Valuable Cargoes.

As wheat was for many years the leading export staple, it was rare that a cargo exceeding $100,000 left this port.

When general merchandise began to form a part of the freight of outward bound vessels, cargo values began to mount up.

Up to 1875 there had not been a cargo cleared for Europe to the value of $200,000, but from that year to the close of 1895, there were sixty-five cargoes cleared in excess of $200,000.

The most valuable cargo in this list was by the steamer St. Paul, which took a cargo of seal skins for London via Panama, valued at $530,000. Since then this freight has gone by rail.

The most valuable cargo direct during the above interval was by the Breidablik, which left September 22, 1891. This cargo included 37,458 cs. canned salmon, 41,400 cs. canned fruit, 860 tons grain and other freight valued at $436,700.

The only other cargo in excess of $400,000 was by the Wasdale in September, 1888, which was valued at $427,900, including 60,110 cs. canned salmon valued at $347,870, the largest of the kind up to that time.

There were eleven other cargoes valued at over $300,000 and fifty-one over $200,000. Cargoes of over $200,000 for Europe have followed in the fall months of every subsequent year.

There were nine of such cargoes in the last four months of 1902. One of these by the Osborne was valued at $443,500. There were three others over $340,000 to $380,000.

Twelve more followed for account of 1893. Two of these cargoes were in excess of $400,000 and one by the Balasore was manifested at $522,400.

In 1904, there were eleven more of these large cargoes, varying from $214,500 to $375,900, and aggregating $3,335,500 in four months.

Business fell off some in 1905, reducing the cargoes in excess of $200,000 to eight, four of which were in excess of $300,000, while the total for all was $2,432,000.

In each of the following two years only three cargoes of the kind were cleared, varying from $259,500 to $472,000.

In 1908, there were ten of these cargoes from $205,500 to $483,100, and in the following year eight, varying from $339,400 to $459,500.

The six clearings in 1910 included five steamers with cargoes of $207,100 to $811,300. The cargo by sail was valued at $258,700.

From $200,000 cargoes to Europe in 1875 to cargoes in excess of $800,000 in 1910 is something of a jump, due of course to larger carriers for the most part, though higher prices may have been a small factor.

A still greater difference during the same interval has been observed in other sources of exports, notably with domestic Atlantic and Oriental ports.

Prior to 1875, there were some cargoes of $200,000 and upwards on both of the above routes.

As early as 1869, there were seven cargoes to New York and vicinity manifested at upwards of $200,000, both by steamers via Panama and sail vessels via Cape Horn.

Since sail vessels for New York were crowded out by steamers, several of the latter have taken cargoes of one million dollars and upwards.

The most valuable cargo of merchandise hence to the Orient in 1869, two years after the inauguration of steamer service, was manifested at $105,000. Since 1903, several steamers for the Orient have taken cargoes of produce valued at one million dollars and upwards.

Clipper Ships—Fast Time.

Owing to the urgent demand at San Francisco in 1849 and for some years later for supplies of all kinds from domestic Atlantic ports, the fastest sailing ships were called into requisition for the service. The clipper ships built for the China tea trade via Cape of Good Hope were heavily drawn upon for this purpose, and Eastern shipyards at once became unusually active in building ships of the extreme clipper type.

As the result of the introduction of these vessels in this trade, some very fast passages were made in the early years.

The best trip between New York and San Francisco in 1853 was made by the ship Flying Fish in 92 days. This vessel made the same trip in 98 days in 1852 and 113 days in 1854, or an average of 101 days for the three trips. She made seven trips in all before retiring from the service, the average of which was a fraction less than 106 days. She was known as a 90 day ship.

The ship Flying Cloud made the trip in 89 days in 1851, and 90 days in 1854. Her average for the first five trips was 101 days and 7 hours.

The Andrew Jackson made the trip in 100 days in 1858, and in 102 and 90 days in the following two years, equal to an average of 97 days for the three trips. Her average for seven consecutive voyages was 105½ days, and she was only a half clipper.

There were many other fast ships in that first decade, including the Swordfish, Romance of the Seas, Westward Ho, Sea Witch, Sierra Nevada, Sweepstakes, Great Republic, Surprise, Twilight, David Crockett, Young America, Phantom, Panama, Sea Serpent, etc.

The Panama made the trip from San Francisco to Liverpool in 1851 in 86 days and 17 hours, the best on record up to that time.

The Young America made one trip inside of 100 days, three of 109 days each, and twenty that averaged 117½ days.

The David Crockett made three trips that averaged 108 days, and twenty that were under 115 days.

In 1863, the big ship Great Republic, 3,357 tons, made the trip in 102 days. This was the largest sail vessel in the arrivals for that year.

Arrivals Announced.

There were means for conveying information before the wireless, or the telephone or the telegraph had come into use.

In 1849, it was desirable to know the arrival and character of the vessels coming in from the sea. A good view of the entrance to the harbor was obtainable from Telegraph Hill, and that was visible to all the people.

A pole on the hill with arms to support signals met the wants of the pioneers.

These signals indicated not only the approach of every vessel that was seeking an entrance to the harbor, but its character as well.

There were signals for steamers, and whether it was a propeller or a side-wheeler.

There were also signals for sailing vessels, and whether it was a ship, bark, brig or schooner.

The signal station was watched closely and persistently, and the arrival of a vessel was a great event, drawing crowds to the anchorage ground, which was generally near the northeastern base of Telegraph Hill.

Steamer Day.

San Francisco merchants inaugurated their business operations as nearly as possible on the principle of pay as you go.

Remittances on Eastern and foreign account were chiefly made in 1849 and for some years afterwards by the Panama steamers.

At first this service was monthly, then semi-monthly, trimonthly and finally weekly.

Mercantile collections were made on the day preceding the departure of the steamer and steamer day was the synonym for collection.

Upon the completion of the first through railway to New York and also at some other times, attempts were made to abolish steamer day and introduce the note system. There was no objection to the note system, but there was decided objection to giving up at least two fixed days in every month for making collections. This is still the practice.

The short credit system has raised the standard of credit, and prevented many unpleasant business embarrassments.

Merchants Exchange.

The business of announcing marine arrivals by crude signals from Telegraph Hill was subsequently followed by establishing a look-out station at Point Lobos at the entrance to the harbor, with men and marine glasses to descry vessels miles away, and report their approach to a station in the central part of the business district. R. S. Martin & Son conducted this service in 1857.

In 1860, and for several years afterwards, the business of gathering and disseminating marine intelligence in San Francisco was under the control of Sweeney & Baugh on Clay street, between Sansome and Montgomery.

The business was removed a few years later to the large building on the east side of Battery street, extending from Washington to Oregon street. This building was erected in 1854 of brick, covered with stucco.

In 1866, the interior was remodeled and a large space in the center was especially fitted up for Sweeney & Baugh as a marine exchange. By removing one of the floors, this made a fine office for the business for which it was intended.

Some parties were dissatisfied with this move. They wanted something on a grander scale, and that would be more of a center for general business purposes.

A large lot on the southwest corner of Liedesdorf and California streets was secured for that purpose at a cost of $150,000, and a three-story brick building with high basement was erected thereon at a cost of another $150,000.

These improvements were financed by a joint stock corporation formed for that purpose in 1866. When this building was formally opened, there was a large room fitted up with the most modern and extensive appliances for receiving and recording marine, commercial and financial intelligence from all parts of the world.

In 1903, this building was removed, additional ground secured and the present 14-story steel structure was erected. This is one of the tall buildings that withstood the big fire and earthquake of 1906.

It is regarded as one of the finest buildings in the city, and serves acceptably the purposes for which it was erected.

Chamber of Commerce.

The Chamber of Commerce of San Francisco is the oldest commercial organization in the city, having been formed in 1851. From a membership of 65 in 1854, the roll has been expanded to 722 in 1911, the largest total ever reported.

Following is a list of its presidents in the order of their service: Beverly C. Sanders, D. L. Ross, J. B. Thomas, George H. Kellogg, James De Fremery, J. A. Donohoe, R. G. Sneath, James Otis, R. B. Swain, C. Adolphe Low, William T. Coleman, William F. Babcock, Isaac Friedlander, James C. Patrick, George C. Perkins, Horace Davis, Henry L. Dodge, William L. Merry, Ira P. Rankin, C. L. Taylor, E. B. Pond, W. H. Dimond, Hugh Craig, Charles Nelson, George A. Newhall, W. H. Marston, C. H. Bentley, Charles C. Moore, James McNab, William L. Gerstle, William Matson.

George A. Newhall held the office for five consecutive years. William F. Babcock served as president for five years, first for two years, and afterwards for three years; Hugh Craig for three years, and fourteen others for two years. Mr. Perkins was subsequently Govenor of the State, and later on United States Senator from California, a position he still holds. Horace Davis was a member of Congress from this district, and James Otis and E. B. Pond served as Mayors of San Francisco.

Other commercial organizations for the public good have since been formed, and each in its special department has been rendering good services. These are the Merchants Exchange, formed in 1866, the Merchants Association, formed in 1894, and the Down Town Association, formed soon after the great disaster of 1906.

There has been a desire for some time to bring these organizations under one head, and this has recently been accomplished.

The new corporation takes the name of the pioneer organization by simply transposing the words San Francisco from the end to the front, which will hereafter read The San Francisco Chamber of Commerce.

The memberships in the four corporations thus merged are being transferred to the roll of the new corporation as fast as possible, and it is expected that this will be completed and the new organization will assume full control in October, 1911. Directors to serve until the first annual meeting are W. M. Alexander, H. H. Allen, Frank B. Anderson, George C. Boardman, Paul T. Carroll, A. B. C. Dohrmann, Robert Dollar, John S. Drum, W. J. Dutton, M. H. Esberg, James Tyson, William Matson, J. K. Moffitt, Henry D. Nichols, M. H. Robbins, Jr., George M. Rolph, Robert A. Roos, A. L. Scott, William T. Sesnon, Joseph Sloss, Frank A. Somers. Mr. Robbins was chosen president of the Board. Headquarters, Merchants Exchange.

Shipbuilding in California.

Some small vessels were built here as early as 1849. The first paddle-wheel steamer to stir the waters of the bay was the Sitka, built in Alaska in 1847.

For the first twenty years after the discovery of gold in the State, scores of bay steamers and coasting schooners were built here for the Pacific trade.

During that interval there was little need for the construction of the larger sized sailing vessels, because of the plentiful supply of Eastern built brigs, barks and ships lying idle in the harbor, and which could be bought at a great advantage over the cost of building. Hence the coast fleet was largely made up of Eastern built vessels, and for years afterwards was replenished from the same source.

There were 57 small vessels of an aggregate of 7,000 tons built in San Francisco in 1868. In 1869, there were 92 of 11,600 tons; in 1870, there were 37 of 3,000 tons, and in 1871, there were 16 of 2,500 tons. Some of these were built on this side of the bay and some on the other side. In addition, quite a number were built in the same interval at coast ports.

The first ocean steamship ever built entire on the Pacific Coast was the Del Norte in 1865. This was a wooden side-wheeler with a keel of 187 feet and a beam of 30. She was built for the Holladay line in the shipyard of Henry Owens at the Potrero.

The largest wooden steamer built for the ocean trade was the Mexico in 1882, at the yard of Dickie Bros. This was a propeller of 1,340 tons, 280 feet on the water line and 36 foot beam. She cost $250,000, and did good service in the Mexican and northern coast trade.

The first steel steamer was the Arago, 827 tons and 200 feet long, built at the Union Iron Works in 1885. The Fulton Iron Works claim to have built a small iron steamer at an earlier date. The Arago went into the northern coast trade.

A special feature in shipbuilding in San Francisco was the construction of several steamers for the whaling business.

In 1884, the catch of the six steamers built and equipped in San Francisco was greater than that of the entire New Bedford fleet of 20 vessels, including two steamers. In later years San Francisco had nearly a score of steamers in the whaling service.

In the last quarter of a century, about 700 vessels of all sizes and for all purpose have been built in California, including about 400 steamers. The sail craft includes no rig above a bark, and most of the steamers have been schooner rigged.

All the California steel steamers have been the product of the same interval.

The most prominent of these are the Alaskan, Arizonian, Californian, Columbian, Isthmian and Mexican for the American-Hawaiian Company, the Peru for the Pacific Mail (1873), and the Senator and Spokane for the Pacific Coast Company. The latest is the Kilaua for the Hawaiian Islands.

These were all built at the Union Iron Works, which in the same interval has turned out over 20 vessels of various types for the United States Navy. The first of these was the protected cruiser Charleston, 4,000 tons, lost on the north coast of Luzon, P. I., in November, 1899, and the last cruiser was the Milwaukee in 1904.

The total list includes 5 protected cruisers, 2 armored cruisers, 1 armoured monitor, 3 armored battleships, 1 harbor defense monitor, and 8 of minor descriptions. The armored monitor Monterey was sent to Manila. The Olympia and Oregon performed distinguished service in the Spanish-American War.

The Chitose in the Japanese Navy was built at the Union Iron Works.

The Bay and Water Front.

San Francisco is proud of its bay, and well it may be, for a duplicate of its excellent features does not exist in any part of the world. It is both land locked and deep. In actual water surface, two South American ports may surpass it, though water surface merely does not count.

The Bay of San Francisco is 450 square miles in extent, and the area for vessels drawing deep water is nearly 125 square miles larger than any other land-locked port.

From its earliest discovery it has won the praise of the best informed who have seen it.

Lieutenant Ayala, one of the first to enter it in command of a vessel, after surveying it in 1775, said it was "a collection of harbors in which all the navies of Spain could hide from one another."

Benjamin Morrell, in command of a vessel that entered the harbor in 1825, said: "It presents a broad sheet of water of sufficient extent to float all the British Navy without crowding."

Richard H. Dana, who was here as a sailor in 1835, was of the opinion that "if California ever becomes a prosperous country, this bay will be the center of its prosperity."

The first thing needed to make the bay of service to those living on the shores was to provide landings where freight and passengers might be conveniently placed ashore.

In the spring of 1849, the vessels arriving from the outside were obliged to send passengers and freight to land in small boats, which was slow and expensive work, as stevedores received from $8 to $16 per day for lightering cargo.

The first wharf built was at the intersection of Commercial street with the bay. This was soon found to be quite inadequate to the demands upon it, and it was subsequently lengthened to 800 feet, and for years afterwards the structure was known as Long Wharf.

Subsequently other piers were built at the intersection of other streets with the bay, both north and south of Commercial street.

It was many years afterwards before any of these piers had a shed covering to protect cargoes in process of loading or unloading.

Long Wharf had been a profitable investment from the start, and even in its lengthened form was insufficient for the needs of the growing commerce of the port.

Wharf franchises soon became in active demand. In October, 1850, Market street wharf extended out from the shore line 600 feet into the bay; California street, 400; Sacramento, 800; Clay, 900; Washington, 250; Jackson, 552; Pacific, 525, and Broadway, 250 feet.

There were also several private wharves along the water front named after individual owners, aggregating a length of 1,500 feet.

In all there was 6,000 feet of wharf space, built at a cost of about a million dollars.

The building of these piers was followed by graders at the land end. Captain Folsom started in to make land on California street, just west of the present site of the Bank of California National Association at California and Sansome streets.

Expensive as that kind of work was at the time, the experiment was found to be a good investment, and others took up the improvements.

In this way some old hulks were enclosed in the new made land. One of these was the Niantic, 450 tons register, at Clay and Sansome. This hulk became the foundation of the Niantic Hotel.

When that wooden structure was razed to make room for the erection of a brick building, the excavators dug into the hulk of the old Niantic, and discovered various articles of merchandise, including several dozen bottles of champagne which had been buried for twenty-one years.

The most northerly of these wharves was at the intersection of Powell street with the bay. This was known as Meiggs Wharf and was built in 1854 by Harry Meiggs for lumber in connection with a planing and saw mill. In October, 1854, Mr. Meiggs took a sudden departure, turning up later in South America to the regret of many creditors.

Increased grain crops found the wharf room entirely inadequate in the busy season. To remedy this condition, the building of a seawall was undertaken on the northern base of Telegraph Hill, so that ships could come alongside to discharge or receive cargo with plenty of wharf room inside of the wall, in connection with warehouses for the storage of grain and merchandise.

The first contract for this seawall was let in 1867 at the rate of $278 per lineal foot, or at the rate of $1,500,000 per mile. This was of course slow work, and before the first section of that improvement became available, the expense and difficulty of loading grain ships as rapidly as desired compelled shippers to seek additional facilities elsewhere.

In 1869, there were 25 vessels loaded at Vallejo. These vessels carried 773,550 ctls. wheat, of which 148,400 ctls were taken on at San Francisco for stiffening and the remainder at Vallejo.

Oakland mole furnished wharf room for some wheat vessels for two or more years, in addition to Vallejo.

Heavy tonnage dues, in addition to other handicaps, at last compelled grain shippers to seek better and more permanent facilities. Port Costa, just opposite Vallejo, was selected for the purpose. This point made it possible for the cars and the ships to come close together. Large warehouses were erected, and a considerable percentage of the grain fleet has since been loaded there.

The following extract from the last biennial report of the Board of State Harbor Commissioners for June 30, 1910, states that the water front line under their jurisdiction in San Francisco is about eight miles.

At that time there were 11,700 feet of completed seawall beginning at the northwesterly end of their jurisdiction, with 30 piers and 23 seawall lots, which lots, together with the land owned by the State around Central Basin, have a total area of 1,104,275 square feet, or over 25 acres.

The piers and bulkhead wharves at the close of that fiscal year represented about five miles of berth space.

When the water front is extended its entire length, with piers 210 feet wide and 800 feet long, having a water space of 250 feet between, the entire length of the contour of the piers and bulkheads will be 193,640 feet, or over 36 miles.

If the piers were 140 feet wide and the space between 220 feet, the contour would be 235,200 feet, or 44½ miles.

This would give 94 of the larger piers and 120 of the smaller piers.

Solid Rock Docks.

Admirable facilities for the docking of vessels for repairs were provided at an early date, first in the form of floating docks, of which three were constructed capable of lifting 3,000 tons.

In 1867, the San Francisco Dock Company constructed a graving dock at Hunter's Point. Unlike such docks at other ports, this one was cut out of solid rock. It is 493 feet long, 164 feet wide on the blocks and 24 feet deep over the sill. This unique dock has been visited by thousands, and elicited praise from all.

Later, when steamers began to be built of additional length, it was deemed advisable to construct another and larger dock in the same vicinity.

This was completed in 1903. It is 750 feet long, 122 feet at the coping, 80 feet wide on the blocks, and 30 feet deep over the sill. At that time these dimensions were sufficient for the largest steamers in the world. Since then some steamers have been built of 790 feet and upwards, but they are not in Pacific water, and two in 1911 of 860 feet.

This second dock, like the first, is cut out of the solid rock, and San Francisco has therefore two of the most unique docks in the world.

Ocean Tonnage Arrivals 1848-1911.

Esewhere will be found a tabular statement of the deep-water tonnage arrivals at San Francisco from 1848 to 1911, both years inclusive.

As there were no records kept prior to 1848, it was deemed impracticable to extend the information beyond that year. It is known that vessels did visit this port at a much earlier date. These arrivals were few and far between, and of no particular significance. The brig Pilgrim from Boston was here in 1835 gathering up a few hides. Another small vessel came into port before she left.

Some Arctic whalers were also among the arrivals prior to 1848.

Owing to the imperfect records kept from 1848 to 1856, in connection with the loss by fire in 1851 of the Customs House records, the totals for some of the early years are from the best information obtainable.

As a whole, the tabulated statement is approximately correct, and is probably the first and most extensive ever made. It is worth preserving on that account.

Panama Canal.

The dream of a former century of a canal across the Isthmus of Darien, through which the largest vessels afloat might pass from the Atlantic to the Pacific Ocean, is soon to be realized, by 1915 and perhaps much earlier.

When the first vessel passes through that canal many millions of people will read the report with exclamations of wonder over the event. In the very next breath they will wonder that this event was so long delayed.

Perhaps it was well that much time and consideration should have been given to an enterprise of such importance and cost.

There were two routes from which to choose as well as two kinds of canal. For a long time the Nicaraguan route seemed to have the lead. After that route had been eliminated in favor of Panama, further time was required to settle the question of sea level or lock canal.

Work on the Panama Canal began in May, 1904. Final approval of a lock canal was not settled until June 21, 1906, and then by a vote of 36 to 31, the vote in the House a week before having been 110 to 36.

The Government paid $40,000,000 to the New French Canal Company for property and franchises and $10,000,000 to the Republic of Panama for a strip of land on either side of the canal.

Exclusive of the above $50,000,000, the cost of the enterprise will approximate $360,000,000.

Under the acts of June 28, 1902, and December 21, 1905, for account of the Panama Canal, the Government issued $54,631,980 in 2 per cent bonds in 1906, and two years later there was a further issue of $30,000,000. The first issue is redeemable after August 1, 1916, and the second after November 1, 1918.

A further issue of $30,000,000 Panama Canal bonds to bear interest at 3 per cent, but not to be available for bank note circulation, was issued in July, 1911, redeemable June 1, 1961.

The summit level of the canal is to be 85 feet above the sea level, to be reached by a flight of three locks located at Gatun on the Atlantic side, one lock at Pedro Miguel, and a

Merchants' Exchange.

Home of the San Francisco Chamber of Commerce, Successor to Chamber of Commerce of San Francisco, the Merchants' Exchange, the Merchants' Association, and the Down Town Association.

flight of two at Miraflores on the Pacific side, all to be in duplicate—that is, to have two chambers side by side.

Each lock will have a usable length of 1,000 feet and a width of 110 feet.

The summit level is 31 miles in length, and the water in that level will be made to average 85 feet above the sea level.

Measured from deep water in the Caribbean Sea to deep water in the Pacific Ocean the canal will be 50 miles long. Excluding the deep water measurements on either side, the canal will be 40½ miles from shore to shore.

The width of the approaches to the shore line on either side will be 500 feet. The width of the intermediate space varies from 300 to 1,000 feet. The average bottom width of the channels is 649 feet and the minimum 300 feet. The canal will have a minimum depth of 41 feet.

Vessels will be able to pass through the entire length of the canal in 9½ to 11 hours, according to size.

The Isthmus Canal Commission owns the railway across the Isthmus with all the property and franchises appertaining to the same, and the steamers that ply between Colon and New York.

The commission has about 45,000 employes on its roll, including 5,000 Americans. Of the total, 5,900 employes are on the railroad. About 4,500 of the whole number are on the gold pay roll and the remainder are on the silver pay roll, which means Panama currency.

Compensations of the Canal.

An improvement of such magnitude in the outlay of labor, time and money as the Panama Canal will represent when completed, ought to confer some corresponding benefits in the saving of time, labor and money.

All these factors were taken into consideration before the first serious step in launching the enterprise was made. It is always wise to weigh the probable results of an undertaking before assuming the responsibility of the task.

It is absolutely certain that the Panama Canal will bestow some advantages not alone to the United States, but to the world at large. That has been true of every similar national and international enterprise, and this will be no exception.

These advantages will doubtless exceed the most extravagant anticipations along some lines, while at the same time they may fall short of even conservative estimates in other directions. Temperaments have much to do in measuring antiticpated results of any action.

One result of the completed Panama Canal is beyond the shade of a doubt. It will open a new water way around the world. But that is not all, nor the chief benefit. It will open a much shorter water route between certain ports than has ever existed.

The shortest all-water route between Liverpool and San Francisco is by way of the Straits of Magellan.

When the Panama Canal is opened for traffic there will be a saving of 5,660 miles over the Magellan route, and a corresponding saving with South American, Central American, Mexican and Australian ports.

Between Liverpool and Hongkong there will be a saving of 5,379 miles over the route by way of the Straits of Magellan.

No other ship canal has been able to effect such a saving between ports of such distance from each other.

In connection with the saving of time, and as an inevitable fruit of the same, there will be a saving in expense on every trip that will be made by every vessel in the service.

In the transportation of freight between domestic Atlantic and Pacific ports there must of necessity be great advantages to importers and shippers.

There always has been and there always will be a large volume of interchangeable products to pass over the route in both directions at much more reasonable rates and in much better condition than hitherto.

The same conditions will be realized in the trade between Pacific Coast ports and European ports to the advantage of all concerned.

There will be a good many passengers to avail themselves of the canal route, and a large and much needed immigration from Europe to the Pacific Coast will follow. The representatives of several big European steamer lines promise through trips.

Domestic Atlantic trade with the Orient will be of little advantage to domestic Pacific ports, and it never has been of much account.

But apart from all commercial benefits of the Panama Canal, it was regarded as an absolute necessity from a military point of view, and even that object alone is justification for the outlay.

Other Ship Canals.

The building of a ship canal is not a new thing under the sun. Such a waterway is no longer an experiment. There are several of these canals of variable length and cost in the world, meeting a variety of purposes and needs. So far as known, they have proved to be good investments, if not from a money standpoint to the promoters, they have to the great convenience and economical advantage of those who navigate the great waters or who are in any way interested in the ocean carrying trade.

The Languedoc Canal saves a voyage of about 2,000 miles through the Straits of Gibraltar. This is a lock canal and is 148 miles long.

The Suez Canal, between the Gulf of Suez and Alexandria, saves 3,750 miles on the route to India. This is a sea-level canal, and the only one of that kind in existence.

This enterprise first began to attract serious attention in 1849, which crystallized in a more definite form in 1854, when Ferdinand Lesseps became associated with it. Many obstacles and prejudices had to be overcome before a start could be made.

Work was not actually commenced until near the close of 1860, and it was about ten years later before the canal was opened for traffic.

From 25,000 to 30,000 men were employed in the construction. The drifting sand made the progress slow and embarrassing.

A small canal for fresh water had to be opened in connection with the work.

The geographical length of the Suez Canal is 88 miles, of which 66 miles was formed by cutting for the canal, 14 miles by dredging through connecting lakes, while 8 miles of the waterway was of the required depth, and therefore already made available.

The canal has a navigable depth of 26 feet for a width of 72 feet at the bottom. There are two breakwaters of concrete blocks at Port Said, enclosing 450 acres of water of a depth of 13 to 14 feet, and 25 to 28 feet in the channel leading to the canal. There is also a breakwater at Suez, and also two large basins and a dry dock.

At first, it required about three days for vessels to get through the canal by daylight. Electric lights installed in March, 1883, have since reduced the time to 16 hours.

The cost of the Suez Canal and its accessories was about £20,000,000.

It was the project of Said Pasha, Viceroy of Egypt. Some progress had been made prior to his death. His brother succeeded, but declined to go on with the enterprise. The Viceroy was reimbursed for the outlay, and the French completed the undertaking. The canal was opened in November, 1869.

In 1870, the number of vessels passing through the canal was 486, representing 654,915 tons of tonnage, and the receipts were £206,373.

Since then an appreciative use has been made of this waterway by vessels from domestic Atlantic and European ports.

With few exceptions, each succeeding year has shown an increase in business over the preceding one.

In 1880, the number of vessels passing through the canal was 2,022, representing 4,344,500 tons of tonnage and recipts of £1,629,600.

In 1890, the number of vessels using the canal had increased to 3,389, representing 9,749,129 tons of tonnage, while the receipts were £2,679,340.

At the end of the third decade, say in 1900, the number of vessels passing through the canal was 3,441, representing 9,738,152 tons of tonnage, and receipts of £3,624,944.

Eleven different nationalities used the canal in that year. As in every preceding year, the British flag predominated, having been observed on 1,905 vessels of 7,389,200 tons of tonnage. In number of trips this is 55 per cent of the whole number made by all flags that year, and in aggregate tonnage represented it is about 62 per cent.

Germany followed Great Britain that year with 325 trips of 1,194,100 tons of tonnage, then France with 202 trips of 808,000 tons and then Holland with 206 trips of 532,300 tons.

The other seven flags were represented by trips varying in number from 78 to 8 and by aggregate tonnage from 265,400 to 6,600.

At the tail end of the fleet passing through the canal was the great United States, once a maritime nation second to no other, with three trips of 6,627 tons. Whether this total represented one vessel making three trips during the year or three vessels is not stated.

The report of the Suez Canal for 1910 shows that 4,533 trips were made, representing 23,054,900 tons of tonnage and receipts of 127,251,233 francs, approximating $25,450,-200 in American money.

That was the best year in the history of the canal. The amount of tonnage for that year shows an increase of 7,647,400 tons over the previous years, or nearly 50 per cent, which is greater than for any previous year since 1872. The increase from 1900 was about 130 per cent.

Of the tonnage passing through the canal last year, 14,365,500 tons was under the British flag, 3,620,000 tons under the German flag, 1,249,700 tons under the French flag and 1,196,200 tons under the Dutch flag.

The toll for passing through the canal was first fixed at 10 francs per net ton of tonnage, but was soon afterwards raised to 10 francs per gross tons, and a little later the same rate was again made applicable to the net ton, with a variable surtax. The latter was subsequently abolished, and in 1887 the tax was reduced to 9½ frances. It was in that year that a night service was introduced under suitable light regulations.

In more recent years the toll has been 7¾ frances per net ton. The vessels in 1910 were sent through the canal on an average of 16 hours and 42 minutes.

Panama-Pacific Exposition Company.

This organization was perfected in 1910, and immediately started a campaign for funds to finance an exposition to commemorate the completion of the Panama Canal in 1915, to which all the world should be invited.

After securing individual pledges for $7,500,000 and State and municipal authority to levy a tax of $10,000,000 more, to be apportioned equally between San Francisco and the State, a large and influential committee was sent to

Washington to obtain a favorable vote from Congress endorsing San Francisco as the proper place for holding the exposition.

By persistent, united and energetic efforts, the committee finally succeeded in securing such recognition against all other claimants.

As soon as a certain percentage of the $17,500,000 has been actually paid up for this object, the President is authorized to formally and cordially invite all nations to participate in the exhibition of their industries along all lines to the end that the exposition may be a credit to all concerned and commensurate with the importance of the event it is intended to commemorate.

So far, every step appears to have been made in the right direction, according to well digested plans and purposes.

Much enthusiasm has been displayed in formulating plans and in the execution of the same, and the unity of feeling has been remarkable. This is a good sign, and it augurs well for the complete success of the enterprise.

San Franciscans have never undertaken any project unitedly without accomplishing the object in view. There have been many illustrations along this line.

In early days, when crime became too rampant to be suppressed by the legalized agencies created for that purpose, the people took the matter into their own hands, and cleaned the town of the rough and disorderly elements. When an attempt was made to flood the State with inferior money, it was settled in a single day.

It is only necessary to carry the present unity of feeling over the exposition in the preparation and execution of the work yet to be undertaken, to make the event to be celebrated one of the greatest of the kind in the world's history.

The site has been selected, and engineers and architects are working out their plans. President Taft has accepted an invitation to break ground for the improvements on October 14th.

Heavy Demand for American Ships.

Old Glory, as the American flag is frequently designated, was in its glory in 1853, when the tonnage arrivals of sail vessels at San Francisco from domestic Atlantic ports numbered 346, representing 260,223 tons of tonnage, with freight earnings of $9,911,400 on the cargoes.

Never before, perhaps, and certainly not since, have the arrivals from that source been as numerous.

Every available vessel on the Atlantic side flying the American flag was pressed into the service for that year's work at such remunerative rates that made American bottoms the envy of the owners of foreign bottoms.

The sail arrivals at San Francisco in 1853 included 189 of 156,986 tons from New York, 103 of 76,570 tons from Boston, and 54 of 26,717 tons from Philadelphia, Baltimore and other domestic Atlantic ports. These vessels averaged 752 tons.

The monthly arrivals from those sources in that year varied from 40 in January to 16 in December, an average of 29 for every month in the year.

Prominent Shippers, Past and Present.

In March, 1847, the only merchant ship in port was the Vandalia, and she was probably consigned to Howard & Mellus, whose place of business was on Montgomery street, between Clay and Washington, or at the edge of the waters of the bay at high tide.

Between 1848 and 1852, the number of persons or firms engaged in receiving or shipping freight in the ocean carrying trade increased rapidly. Many of these early shipping firms were from the West coast, while others were from the Atlantic side.

Among these were Agard, Foulkes & Co., Alsop & Co., William T. Coleman, Cross & Co., Falkner, Bell & Co., Flint, Peabody & Co., Freeman, Smith & Co., Isaac Friedlander, James De Fremery, DeWitt, Kittle & Co., Dickson, DeWolf & Co., Daniel Gibb & Co., George Howes & Co., C. Adolphe Low, J. C. Merrill & Co., Macondray & Co., Parrott & Co., Moore Bros., Stevens, Baker & Co.

All these firms were in existence in 1870, and many others had been added during the interval, while some of the later ones had dropped out.

In March of that year there were 28 vessels en route from domestic Atlantic ports and 39 from foreign ports, exclusive of the steamers in the regular passenger lines.

The shipping firms in business here in March, 1870, embraced Augur, Christiansen & Co., Balfour, Guthrie & Co., N. Bichard, Charles Wolcott Brooks & Co., A. Crawford & Co., P. C. Dart, Albert Dibble, Forbes Bros., B. Feurstein & Co., Gildermeister Meucke & Co., Hellman Bros., McNear Bros., John Mel & Son, T. Lemmon Meyer, Henry Lund & Co., Pascal Dubedat & Co., J. Pinet, Rodgers, Meyer & Co., John Rosenfeld, Platt & Newton, A. E. Sabatie, Morris Speyer, Castera & Lacour, Vernon Seaman, A. M. Simpson & Co., Williams, Blanchard & Co., A. Vignier, C. L. Taylor, Welch & Co.

Very few of the shipping houses in existence at one time or another prior to 1871 are now in operation, and many of the vacancies have never been filled, owing to the concentration tendency of the times.

The leading shipping firms now in business embrace Balfour, Guthrie & Co., Girvin & Eyre, W. R. Grace & Co., Hind, Rolph & Co., J. & A. Brown, Henry Lund & Co., McNear & Co., Meyer, Wilson & Co., J. J. Moore, Parrott

& Co., Strauss & Co., Welch & Co., Williams, Dimond & Co. These are exclusive of the regular steamship lines.

Of the 60 grain vessels cleared in the last fiscal year, 25 were cleared by Balfour, Guthrie & Co., 6 by Girvin & Eyre, 7 by Hind, Rolph & Co., 8 by McNear & Co., and 11 by Strauss & Co.

Future of American Marine.

The American flag, once so prominent on the merchant marine in foreign ports, has of late years been significantly absent, and that large class of citizens in foreign lands who have never ventured beyond their own sea coast know nothing about the American flag, nor what it stands for in the family of nations.

Various attempts have been made in the last thirty or forty years to restore the prestige once enjoyed by the American marine in the ocean carrying trade of the world.

It is thought that this could have been done in either one of two ways, namely, by subsidies or by according American registry to foreign built ships. So far, Congress has utterly refused to adopt either measure.

Great Britain, France, Germany and Japan have granted subsidies to vessels carrying their flags, and with apparently some good results, though perhaps not in all cases as satisfactory as could be desired or as anticipated. Still this course has had the effect of increasing the merchant marine of these countries.

For want of some inducement other than now exists to build and run American ships, the Government has been obliged to charter foreign bottoms to carry coal from domestic Atlantic to domestic Pacific ports for its Navy. In doing this it has violated its own customs regulations, and has done what it would heavily fine any private citizen for doing.

If the Government cannot get American ships to do its own freighting, it should build its own ships for that purpose. What it is now doing in the use of foreign ships to carry coal between the Atlantic and Pacific is open to criticism and has been frequently censured.

Six British steamers of 18,000 tons register arrived at this port in August, 1911, from Virginia, with coal for the Government.

The Government can well afford to grant, under restricted conditions, American registry to foreign built ships. It is claimed by some that even this concession will fail to increase the merchant marine of the country. But it is worth a trial. The Government might insist on the option of the use of such ships in case of emergency.

The opening of the Panama Canal will add materially to the volume of freight between the Atlantic and the Pacific, and American citizens should be favored to the fullest extent possible in the use of the waterway.

In 1861, American tonnage in the foreign trade of the United States amounted to 2,496,900 tons. That was the largest total ever reached, and included 102,600 tons under steam. The American people were justly proud of the prominence of American shipping in the foreign trade at that time.

A half century has since elapsed, and the total of American tonnage in the foreign trade is 800,000 tons, of which 75 per cent is under steam.

It is claimed that Americans now own and operate 1,600,000 tons of tonnage under foreign flags. This total includes the steamers in the famous White Star line, a New Jersey corporation.

So long as steamers can be built in foreign shipyards at one-half the cost of building the same in this country, something must be done to overcome that difference. American registry to foreign built ships is insufficient and unsatisfactory. It is desirable that the ships should be built in this country. The last annual report of the Cramp's plant in Philadelphia showed an insignificant net surplus.

The cost of running American steamers greatly exceeds that of foreign steamers, but under more favorable navigation laws this expense could be modified without detriment to the service.

U. S. Navy at the Golden Gate.

Probably one of the finest exhibitions in the marine line ever witnessed at this port was the entrance through the Golden Gate in May, 1908, of the large fleet of warships from the United States Navy in the notable voyage around the world.

The sight was both imposing and instructive to the many thousands who witnessed it, some of whom had never seen such an array of warships before, and they are not likely to see another equally as magnificent again, at least not until the exposition in 1915.

It was truly an inspiring scene. It stirred anew the patriotism always existing in every lover of his country. It added a little to the stature and strength of every beholder.

The place assigned in the bay to this large fleet was excellently chosen, and the thousands who daily used the numerous ferries during the stay of the fleet were highly favored.

The sending of this fleet around the world was a good object lesson to people in every port of call. There is a better appreciation and more respect for the United States in foreign countries than previously existed, and the experience will have an abiding influence for many years.

An American Line with a Record.

If the history of the Pacific Mail Steamship Company should ever be written, it will be a contribution to marine intelligence worth reading and of profound interest. It is the oldest American steamship company in existence. Started in April, 1848, over sixty-three years ago at this writing, it has maintained a varied and uninterrupted service amid all conceivable impediments, including competition by rival lines, some of which were installed from mercenary motives, together with losses by fire and other perils incident to all water transportation agencies.

Its history is intimately interwoven with that of California, but antedates it by two years. The indebtedness of the one to the other has been about evenly divided. In the early years, its steamers brought thousands of people to work its mines, till its soil and put in manufactured form such of its products as required this handiwork.

The company has shared to some extent the prosperity of the State and suffered alike with it during the lean years. But it has never gone back on the State it has helped to build up. It has maintained a generally satisfactory service on all the routes it has ever covered in the largest of the five great oceans of the world. It has upheld the flag of the country for a longer period than any other line.

Incorporated with a capital of $500,000 in 1848, but without a single steamer at its disposal, it entered at once upon the construction of a fleet that in twenty years numbered twenty-five, independent of those lost during that interval. All this was accomplished with but little aid from the Government in the way of subsidy for carrying the mails. There was a subsidy of $200,000 per annum for a few years for carrying the mails from New York to San Francisco and Portland, and upon the opening of the China line a further subsidy of $500,000 for a few years. There may have been other small subsidies on the other routes covered for limited periods, but they are not recalled.

The founders of the line, as represented by Aspinwall, Howland and Chauncey, were just the kind of men to head an enterprise of this kind. They had been tried in other departments of business and finance, and were thoroughly seasoned for the new adventure. When these gentlemen undertook this work, the discovery of gold in California had not been made public, and their undertaking therefore was all the more heroic. But they were equal to the new responsibilities which that discovery thrust upon them. It is fortunate that such was the case, for incompetent men would have failed to meet the emergencies of the hour.

As bearers and distributors of the California gold, the company held a position of responsibility second to no other then in existence. The Civil War of 1861 to 1864 greatly accentuated this responsibility. Steamers with one million in gold were worth going after by piratical crews. This was especially true of the company's steamers from Aspinwall to New York. So great was this peril on that route that a Government war steamer was detailed to act as a convoy on the most dangerous part of the route. At that time the country had no gold to spare, and its paper money was worth only 40 cents in specie to the dollar. Next to the army, California's gold was the most valuable asset of the Government at that time.

The company of course had its trials, both internal and external. On the Atlantic side especially, Commodore Vanderbilt was a source of irritation, and also to some extent on the Pacific side. This eventually led to a division of the service, Mr. Vanderbilt taking complete possession of the Atlantic route and the Mail Company of the Pacific. Tired of this service, Vanderbilt sold his steamers to outside parties, and they in turn sold them to the Pacific Mail Company, which retained the through service until 1893, when the Government undertook the service between Colon and New York, purchasing the company's steamers on that route.

In the earlier years of its history, there were occasional reports of differences affecting the internal management of affairs. It was said that stock jobbers sometimes got control of the shares, and put in men who knew more about manipulating stocks in Wall Street than they did about manipulating ships on the sea, and who naturally put in their best work where they were most at home, and got their reward, not in well-earned salaries so much as in the profits from stock deals. From a par value of 100, the shares have vibrated from 300 down to 30. This was the range that prevailed prior to 1887. How many fortunes have been lost and won in these manipulations it is impossible to tell.

For many years the stock was a favorite gamble in Wall Street. All sorts of rumors were put in circulation from time to time to inflate or depress values, the manipulators making quite as much out of these deals whether operating on the bear or the bull side of the market. The legitimate vicissitudes of the company have also been an element in the same line. The loss of a single steamer has knocked many per cent from the value of the shares. In the first seven months of 1887 the price of the shares varied from 58 in April to 38 in August.

During those forty years there were also rumors of attempts to unduly influence legislation, both State and Federal. Such charges against corporations, whether just or unjust, have been made from time immemorial, and they will probably continue to be made to the end of the ages.

As a matter of history, it may be stated that in the spring of 1867, the New York Legislature had a committee investigating alleged mal-administration of the company's affairs, but the report of that committee fully exonerated the directors. There is a class in every large community that delights to assail corporations for all sorts of unlawful things, who would not dare to make the same charges against the individuals forming such corporations in matters pertaining to their private business.

In the first twenty years of the company's business it built up a fleet of 25 steamers, including the America and Japan, on the stocks at the end of that term. The list included the Henry Chauncey, New York, Ocean Queen, Rising Star, Northern Light, Ariel, Champion, Arizona, Costa Rica, and Clara, together with the new steamers Great Republic, China, Japan and America on the Atlantic, and the Colorado, Hermann, Golden City, Constitution, Golden Age, Sacramento, Montana, St. Louis, Sonora, California and Taboga on the Pacific.

These steamers, with a single exception, registered from 1,000 to 4,000 tons, most of them being from 2,000 to 4,000 tons. Four of them were new in 1867. These were the America, China, Great Republic and Japan, each costing about $1,250,000, or $5,000,000 for the four. Most of the others cost from $250,000 to $500,000, showing that the company had in 1867 about $10,000,000 in steamship property. All these were side-wheelers.

Twenty years later, or in 1887, hardly one of these was in existence as a steamer, though the hulks of two or more might be found in service under sail or as store ships. That was a good deal of property to be wiped out in twenty years, as the company did not insure its steamers in the early years, and the only realizable asset was the pittance obtained from the sale of the steamers to be broken up for junk. Two of the big paddle-wheelers of 1867 ended their days in smoke on Asiatic shores, another was wrecked off the Oregon coast and the fourth was broken up.

In no subsequent year has the company owned so many side-wheelers as in 1867. That appears to have been the turning point in the construction of such steamers for the Pacific Mail service. The inauguration of the China trade is what did the business for the side-wheelers.

President McLane, however, as late as April, 1868, strongly favored side-wheel steamers, and his firm stand on that proposition at that time provoked much adverse criticism. The experience of the side-wheel steamer Golden Age on her first and only trip hence to Japan in 1869 was just what had been predicted of side-wheelers when caught in a typhoon. It is true the Golden Age outrode that storm, and survived to do years of good service in the China Seas. But her escape was more providential than otherwise, as the typhoon ceased almost immediately upon striking the vessel. She was thrown on her beam ends and the fires put out. Yet she was soon righted by the cutting away of her hurricane deck, the ability to work one of her wheels and the sudden cessation of the storm.

If the directors of the Pacific Mail had not already determined to cease building steamers of that class for the China trade, the narrow escape of the Golden Age in the winter of 1869 would have decided them. It appears that the stockholders indorsed this view of the directors by retiring Allan McLane from the presidency of the company about the same time that the building of side-wheelers in the China trade was abandoned. At least this was the view the two events so closely allied suggested to the outside public.

For five years following the opening of the China line, though not particularly as a result of that enterprise, but rather through business depression and other causes, the Pacific Mail did not make much headway. In 1872, the company owed $3,500,000, and had only one iron steamship paid for, the Honduras.

In seven years thereafter the company built a fleet of iron steamers costing $9,500,000, three-fourths of which sum came out of the earnings. In 1879, the company's fleet embraced sixteen iron steamships, all screw propellers, and four wooden side-wheelers. This list included the City of Peking and City of Tokio, each 5,080 tons, which were the largest steamers then afloat in the China trade. Under the new tonnage law of November, 1882, the tonnage register of these vessels was reduced to 3,129 tons. At that time there were but few steamers in service anywhere with a larger registered tonnage. The exceptions as then recalled were the British steamers City of Rome, 4,015 tons, and Servia, 3,971 tons, and the French steamer Le Bretagne, 3,907 tons. The Servia had then only recently come off the stocks. Neither of these steamers is now in existence. The City of Peking and the City of Tokio were the largest steamers under the reduced tonnage flying the American flag in any part of the world at that time.

Commencing in 1848, with a paid-up capital of $500,000, additions were made from time to time, mainly in the form of scrip dividends, until the total reached $20,000,000. There were no cash dividends paid until May, 1856, or eight years after its organization and seven years after it had three steamers running between Panama and San Francisco.

The first dividend was 10 per cent, which was paid in May, 1856, and a second dividend of 15 per cent was paid in the following November, making 25 per cent so disbursed in 1856. The nominal capital at that time was $4,000,000, though only $3,691,000 was entitled to the dividend. Twenty-five per cent in one year was not a bad thing to take, even in the days of old and the days of gold.

But in 1857, the company did better still, giving stockholders three 10 per cent dividends, or 30 per cent. That was the largest cash dividend the company ever paid in a single year.

In 1860, the full capital stock of $4,000,000 was paid up, and remained at that figure until 1865, when another $1,000,000 was added. This was on August 20th. A month later there was a scrip dividend equal to 50 per cent of the paid-up capital, which of course increased the same to $7,500,000.

On June 1, 1866, an addition of $2,500,000 was called in from stockholders, thus increasing the capital to $10,000,000. In October of the same year, 50,000 additional shares were issued, making the capital $15,000,000, and on January 2, 1867, a dividend of 50,000 shares was given to stockholders, which further increased the capital to $20,000,000.

No further change has been made in the capital stock from that day to the present. Of this capital, as will have been observed, $7,500,000 was paid in cash and $12,500,000 in the form of stock dividends, of which $2,500,000 was distributed in 1865, and $10,000,000 in two equal amounts in 1866 and in 1867, respectively.

Cash dividends were maintained every year from 1856 to 1867, but at irregular rates and intervals. In 1858 there were three of these dividends amounting to 26 per cent, followed by one of 10 per cent in 1859, and two of 10 per cent in 1860. In 1861, there were three of 5 per cent each, and in the following three years four quarterly dividends of 5 per cent each were paid. In 1865, there were three dividends amounting to 15 per cent, one of 5 per cent and one of 2½ per cent. In 1866, the dividends were paid bimonthly, four of them being at 5 per cent and two at 2½ per cent. In 1867, there were four dividends, aggregating 12 per cent. No dividends in 1868, but three of 9 per cent in the aggregate in 1869.

There were no further cash dividends until 1884, when three, aggregating 3¾ per cent, were paid. There were no dividends in the following two years, but in 1887 there were four, equal to 1¼ per cent per quarter.

The total cash dividends paid from 1856 to 1887, both years inclusive, amounted to $15,456,510. This was not a very large sum to distribute among stockholders in the way of cash dividends by a big corporation that had been in existence for practically forty years, and yet this amount was just double the sum that the stockholders had paid into the company on account of capital stock. These 75,000 shares cost the subscribers $100 per share, or $7,500,000. If they had been selling at par in 1887, when the last of the above dividends was paid, the stockholders could have said that they had received in cash two dollars for every dollar they had put into the company, but as previously mentioned, Pacific Mail shares in 1887 sold at 58 to 38.

In addition to the cash dividends, however, the stockholders had received prior to 1868 through stock dividends a total of 125,000 shares of capital stock, having a par value of $100 per share, equal at that rate to $12,500,000, but worth not one-half of that sum as based upon the average selling price in the open makret in 1887.

The date is not at hand to show how long after 1887 these cash dividends were maintained, even at the low rate of 5 per cent per annum. As far as can now be recalled they were soon afterwards suspended for a time.

It is known that in 1896 a dividend of 1 per cent was paid, while for the following three years there were further cash dividends of 2, 2½ and 3 per cent per annum, respectively.

There have been no cash or other dividends paid since 1899. In 1892 the stock was much depressed, with some reported sales at 9 to 11, with C. P. Huntington as the purchaser.

In November, 1900, the Southern Pacific Company succeeded in acquiring 100,050 shares of the capital stock, representing a par value of $10,050,000, which, of course, gave to that corporation a control of the business.

Since 1867, the capital stock has been $20,000,000, in 200,000 shares. Several attempts were made prior to 1887 to reduce this capital, but they did not meet with favor. Expansion is always more popular than contraction.

The omission of dividends in 1885 and 1886 was the occasion for one of these attempts at reduction of capital.

Just before the first dividend of 1 per cent in 1887, the financial statement showed a cash balance of $530,000, while the outstanding liabilities were only $100,000. The payment of that dividend still left a cash balance of $230,000 in excess of liabilities.

After the payment of the last dividend in 1899, the management determined to devote the surplus earnings to the further improvement of the plant in the way of new steamers and other changes as needed from time to time. For two years after the purchase of the Starbuck in 1885, there had not been a single addition made to the fleet. The magnitude and hazardous character of the business in hand had reduced its margin of reserve steamers to a narrow limit, and a strong appeal was made to Congress at that time for a rebate of duty on materials needed in the construction of new steamers. This failed, meeting the same fate as previous ones of similar character. At the same time, British steamers in the China trade with the United States via the Suez Canal, were giving the Pacific Mail much trouble.

It is no wonder that rumors that the company was to abandon this or that route have found circulation every now and then during the past decade. With only nominal subsidies for carrying the mails to foreign ports, that would have to be paid to some parties in any event, the company has maintained a first-class service on every route it has covered, and often at a loss. The Government should have more pride in the display of its flag in foreign ports than has been exhibited by its conduct in this particular.

The fiscal year of the Pacific Mail Company ends on April 30th. For the last six fiscal years, ending with April 30, 1911, the earnings from all sources for each year and the surplus or deficit at the end of each year, have been as follows:

In 1905-6, earnings $5,724,337; surplus $282,885.
In 1906-7, earnings $4,839,245; surplus $130,464.
In 1907-8, earnings $4,336,312; deficit, $428,817.
In 1908-9, earnings $4,664,944; deficit, $339,685.
In 1909-10, earnings $4,853,374; deficit $214,577.
In 1910-11, earnings $4,974,819; deficit $199,276.

For the year 1910-11 there was $354,457 charged for depreciation and extraordinary repairs.

It is presumed that such a course was the rule in the other years before determining the surplus or deficit for the year.

In the last fiscal year the ordinary disbursements were $4,819,638, or $155,181 less than the receipts. But after charging off $354,457 for depreciation and extraordinary repairs, this net income of $155,181 was changed to a deficit of $199,276.

During the last six fiscal years, Pacific Mail Company shares in New York have ranged from 53 in December, 1905, to 19 two years later. The lowest point in 1905 was 33.

The extremes for the subsequent years have been as follows: In 1906, from 51 in January, to 29 in June; in 1907, from 41 in January, to 19 in December; in 1908, from 29 in January, to 24 in August, rising to 40 in December; in 1909, from 29 in February, to 45 in December; in 1910, from 43 in January, to 23 in July; in 1911, from 23 in April, to 31 in August. Fractions omitted.

The Pacific Mail Company now owns about 20 iron or steel propellors, representing a net registered tonnage of about 70,000 tons.

It operates a tri-monthly line from San Francisco to Panama via Mexico and Central America ports; a semimonthly express line to New York via the Isthmus; a trimonthly line to Hongkong via Honolulu and Yokohama, with a monthly detour to Manila.

OCEAN TONNAGE ARRIVALS

Following is a statement of net registered tonnage arrivals annually in the ocean trade of San Francisco from 1848 to 1911:

Calendar Years	Foreign Trade		Domestic Trade		Combined Trade	
	Steam	Total	Steam	Total	Steam	Total
1848	....	23,000	1,000	27,000	1,000	50,000
1849	13,600	133,600	5,000	259,000	18,600	392,600
1850	30,000	165,000	10,000	325,000	40,000	490,000
1851	62,800	198,800	12,000	314,000	74,800	512,800
1852	70,300	230,300	13,000	310,000	83,300	540,300
1853	83,400	234,100	15,000	324,900	98,400	559,000
1854	79,000	180,100	16,000	302,500	95,000	482,600
1855	74,600	154,600	14,000	337,500	88,600	492,100
1856	71,800	155,900	17,000	287,500	88,800	443,400
1857	48,700	133,800	20,000	291,600	68,700	425,400
1858	100,500	200,000	18,000	272,700	118,500	472,700
1859	122,700	230,700	21,000	365,900	143,700	596,600
1860	102,300	202,400	35,000	335,400	137,300	537,800
1861	83,300	205,600	40,000	389,000	123,300	594,600
1862	135,000	256,400	41,300	381,500	176,300	637,900
1863	148,300	290,700	38,000	368,000	186,300	658,700
1864	171,900	335,900	42,000	403,500	213,900	739,400
1865	151,900	302,700	50,000	387,200	201,900	689,900
1866	158,200	329,200	64,200	411,000	222,400	740,200
1867	183,500	340,300	90,600	575,200	274,100	915,500
1868	256,100	448,900	101,000	640,500	357,100	1,089,400
1869	205,900	413,900	119,200	757,100	325,100	1,171,000
1870	161,700	367,800	149,500	681,900	311,200	1,049,700
1871	186,800	381,100	156,500	694,000	343,300	1,075,100
1872	196,200	499,200	159,200	733,700	355,400	1,233,900
1873	216,500	549,300	162,000	740,800	378,500	1,290,100
1874	267,900	682,500	192,700	859,600	460,600	1,542,100
1875	284,100	607,100	257,700	974,800	541,800	1,581,900
1876	272,500	729,200	282,300	1,069,700	554,800	1,798,900
1877	278,400	606,300	260,700	1,019,200	559,100	1,625,500
1878	286,400	692,400	256,500	954,900	542,900	1,647,300
1879	291,800	669,800	255,600	933,300	547,400	1,603,100
1880	298,600	731,200	254,000	927,200	552,600	1,658,400
1881	335,100	984,200	390,800	1,072,000	725,900	2,056,200
1882	420,300	1,059,100	430,400	1,208,600	850,700	2,267,700
1883	306,300	835,600	436,800	1,191,400	743,100	2,027,000
1884	326,100	800,600	422,400	1,145,700	748,500	1,946,300
1885	284,200	751,600	435,600	1,156,500	739,800	1,908,100
1886	369,100	906,900	404,400	1,053,900	773,500	1,960,800
1887	340,000	871,100	510,000	1,085,000	850,000	1,956,100

OCEAN TONNAGE ARRIVALS—Continued

Calendar Years	Foreign Trade		Domestic Trade		Combined Trade	
	Steam	Total	Steam	Total	Steam	Total
1888	350,000	952,400	525,000	1,112,300	875,000	2,064,700
1889	390,800	1,062,900	520,000	1,119,800	910,800	2,282,700
1890	400,000	981,500	636,000	1,144,300	1,036,000	2,125,800
1891	517,500	1,364,800	648,000	1,172,900	1,165,500	2,537,700
1892	464,600	1,137,700	642,000	1,181,600	1,106,600	2,319,300
1893	522,900	1,076,400	763,000	1,160,600	1,385,900	2,237,000
1894	533,900	1,051,900	791,000	1,186,200	1,324,900	2,238,100
1895	551,900	1,188,400	784,000	1,164,400	1,335,900	2,352,800
1896	651,400	1,292,600	862,500	1,208,600	1,513,900	2,501,200
1897	510,700	1,092,700	960,000	1,246,100	1,470,700	2,338,800
1898	562,700	1,038,500	1,032,000	1,354,400	1,614,700	2,392,900
1899	673,000	1,142,600	1,000,000	1,294,600	1,673,000	2,937,200
1900	847,400	1,430,100	1,040,000	1,365,000	1,887,400	2,795,100
1901	950,000	1,511,400	1,080,000	1,396,300	2,030,000	2,907,700
1902	868,400	1,523,300	1,276,000	1,471,400	2,144,400	2,994,700
1903	1,015,800	1,604,200	1,423,300	1,812,300	2,828,100	3,143,100
1904	884,000	1,307,900	1,511,100	1,825,000	2,395,100	3,132,900
1905	960,000	1,329,700	1,563,500	2,250,200	2,523,500	3,579,900
1906	1,184,400	1,432,800	1,965,300	2,460,400	2,949,700	3,893,200
1907	1,317,400	1,508,500	1,950,800	2,752,300	3,268,200	4,260,800
1908	1,471,000	1,745,600	1,979,600	2,764,100	3,450,600	4,509,700
1909	1,265,300	1,464,500	2,073,100	2,904,300	3,338,400	4,368,800
1910	1,604,300	1,780,300	2,206,800	3,059,600	3,871,100	4,839,900
1911	1,142,500	1,162,100	2,707,100	2,945,400	3,849,600	4,107,500

NOTE—Totals for 1911 covers only first eight months. It is safe to add 50 per cent to those totals for the first eight months to cover the entire year of 1911.

To make comparisons complete, tonnage arrivals from the Hawaiian Islands since annexation have been credited to the foreign trade as previously, while the tonnage represented by the American-Hawaiian steamers via Mexico since 1908 has been credited to the domestic trade as previously.